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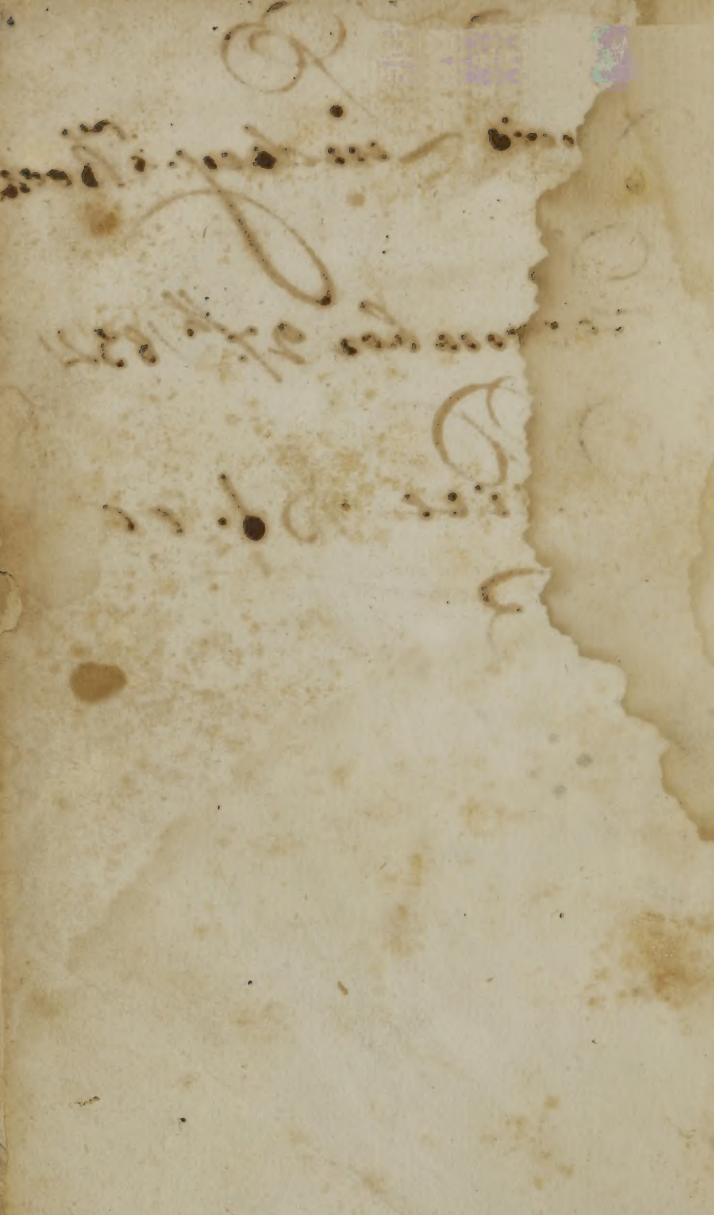
Wm. H. Miller

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FAMILY ADVISER,

GREATLY ENLARGED AND AMENDED:

TO WHICH IS PREFIXED

THE PHILOSOPHY OF DISEASE,

WITH TABLES,

FOR THE USE OF STUDENTS OF MEDICINE;

OR OF

GENTLEMEN WHO WISH TO BECOME ACQUAINTED WITH THE FUNDAMENTAL PRINCIPLES OF MEDICINE.

BY HENRY WILKINS, M. D.

ONE OF THE TRUSTEES OF THE UNIVERSITY OF MARYLAND.

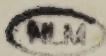
“To do good and to communicate, forget not.”—PAUL.

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PREFACE.

It is now thirty-eight years since the author of the Family Adviser first gave a copy of it to our late venerable Bishop Asbury, as an assistance to him, whilst traversing the margins of our western civilization. Since then he has not attempted to make any alterations, nor amendments, nor additions, till the present time. At the period of its first publication, there were but two apothecaries even in the great city of Baltimore, and none in the small towns; and medicines were scarce and precious articles in the western world. But now every small town has its apothecary; every village its store, with essential medicines as part of its stock. There is, therefore, no farther need of that great restriction of medical means observable in the former editions of the Family Adviser. Moreover, the condition of America, as to information, is greatly improved in the last thirty-eight years; (which may be called a generation.) At every small distance, throughout the interior country, there are to be found men of intelligence, who can well comprehend and make use of medical instruction, so as to be of great use to those who are unable to obtain or employ a physician.

In the mean time the author has had an opportunity of comparing the European description (from which he took largely to make up his little book) with the actual diseases, and the necessary remedies used in America, and he has found that

the vigour of the American constitution, its climate, and its open and free manner of life, have given a very considerable cast to many diseases varying from the best European description. He, therefore, considers it necessary to adapt the book to its country, and to its day; for medicine is constantly on the advance. He flatters himself, that, if any candid, intelligent physician will take the pains to read this book in its present state, he will not hesitate to say, the author has not only attended to those things but has also given to the world some new ideas and a few remedies, not before advanced, that are worthy of notice. There is in this edition a considerable number of important diseases added to the book, besides many directions for accidental and surgical cases, and several chapters on other points relative to medicine, with a pretty large apothecarium. The chapter on typhus, which has substituted the chapter on nervous and putrid fevers, though novel, has been taken from the bed-side; and that not from one, but many patients: That fever (the typhus mitior) being endemic to the spot where he now resides. The constant increase of intelligence throughout the union has induced him to give a few pages as a general theory at the beginning of the book, which are of a philosophical cast; and although this liberty and a general enlargement will swell the volume; yet, the old book and its simples, much corrected, are still within the lids of the new book. If, therefore, such corrections and additions are worth the increase in price, there will be nothing to complain of.

The author has to acknowledge many facilities received from the writings of Dr. Robt. Thomas, with Dr. Hossack's appendix; Dr. Gregory, with

Drs. Potter and Calhoun's notes; Dr. Dewees and Dr. J. S. Dorsy. The author is also pretty certain that he is indebted to some medical gentlemen (not authors) for many practical ideas. Two of these, now living, he takes pleasure in naming: Dr. Jas. Steuart, of Baltimore, and Dr. William Murry, of West River, Maryland; with whom he closed his first studies more than forty years past.

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OBSERVATIONS ON THEORIES OF DISEASE.

It will be seen by reading over the FAMILY ADVISER, that the author has seldom touched on what physicians call the proximate cause of disease. The reason for this neglect will be given. The theory of disease, as it is called, varies every generation. A hundred years ago physicians attributed disease to a thickness or thinness of the blood and humours, or to certain fermentations, which, like the workings of beer, took an uncertain time to concoct and throw off the sediment or peccant humour. The following generation, being displeased with those theories, discarded the humours and charged the solids with being in error, and considered spasms of the extreme vessels as the proximate cause of fevers at least:—since then various theories have crept in, the principal of which is the Brunonian, where every thing is charged to mere flood and ebb-tide in the system. Language was appropriated to each system; hence, we find our old books filled with inspissants, attenuants, and concoctants, to alter the state of the fluids; anti-spasmodic and sedative medicines, stenic and astenic diseases, indirect and direct debility; the former of these terms used (*viz.* indirect debility) to express an inundation as from an overflowing tide, prostrating all before it.* If with all this jargon we take

* Dr. Brown simply bailed out the arteries and stomach, or filled up with beef steaks and brandy, according as he had to engage a flood and ebb-tide; but his *indirect debility* rather puzzled him; he, however, directed the bailing system even to restore prostration till there should be an apparent recovery, when a more temporizing plan might take place, *pro re nata*. Dr. Rush embraced this system so far as to mere theory, but applied the celebrated Dover's practice to it; making

into consideration, that the theory and language of chemistry was altered full as often, we shall have some idea of a medical consultation when pupils of each school meet together: for there were always some who retained their old theories and language too; and should this babel-like language continue, it may be necessary to give physicians a course of instruction at a deaf and dumb school, or at the university of Lagado, that they may understand each other (when they come together) by signs at least.

The cause of all this discrepancy of sentiment and consequently of language, is this: physiology is a dwarf, it has not grown one inch since its birth. Adam knew all that is now known about the motorial power, for he could not but perceive that the heart beat without his orders, and his children grew without their intention; and, also, that the locomotive muscles were under his command; and as to the essence of motion, its generation, its location of reserve or store-house and its laws, he was full as wise as the present generation, who have, nevertheless, given whole systems of physiology, built on an intimate knowledge (as one would suppose) of all these particulars. A simple question, however, whether this motorial power is a fluid, or a quality, like gravitation, would confound the wisest of them. Taking vain theories as facts and for a solid foundation, other theorists have built on this rubbish various conjectural systems of pathology, detailing the invisible morbid motions or actions of the same principle, a thing still more difficult; so

most of Brown's ebbs to be floods. Thus whilst the latter (Brown) supposed 75 in 100 to be diseases of pure debility, the former supposed them to proceed from excess of action: no wonder amidst conflicting tides if the patient should sometimes sink in the whirlpool.

that ignorance associating with error, it became no wonder to find confusion the result.

The author of the Family Adviser discarding most of those subtle and untangible theories, has given the following chapter on Philosophy of Disease to fill up the apparant vacancy. He has, in general, confined himself to the most *obvious* causes of disease, however remote; has pointed them out and given them a sort of classification; and as to disease itself, he has seldom gone farther in portraying it than the dissector's knife, the eye or hand of the physician, and the expressions of the patient's feelings have led him. Thus confining himself to principles which can never pass away.

PHILOSOPHY OF DISEASE.

OF AGENTS.—The first possession of substance and of life in every individual, either of the vegetable or animal kingdoms, is a parental gift. This offset being insufficient of itself for further growth, and to attain to the standard ordained for such individuals, it becomes the office of the living machine to procure the residue from the great sea of elements and its inhabitants that lay around, (in liquid or organic forms) composing the furniture of this terraqueous globe. For chemistry has taught us that all the components of the animal fabric, with exception of the sentient and vital principles, are to be found in the common elements* and inanimate organizations of nature. Although a large portion of what is necessary to build up the animal fabric (*viz.* *ingesta*) has been previously extracted from other animals or from vegetables;† yet, by tracing back our ideas to only two individuals, (Adam and Eve) and to a few original plants,‡ we shall readily perceive that the substance of all the human race, and of all vegetation, has been derived from that sea of elements that surrounds us, (composed of oxygen, hydrogen, azote, carbon, caloric in the forms of water, atmospheric air, heat,) and the solid earthy substances. And from this circumstance there is not only a relation subsisting between what is animate and what is inani-

* Before the present knowledge in chymistry, water and atmospheric air were considered simple bodies, (which elements must necessarily be) and in this old sense we are under the necessity of using them as yet (technically.) The inconvenience will be nothing after information.

Especially, as when needed for explanation, the peculiar element (*viz.* oxygen, nitrogen, hydrogen-caloric,) will be named.

† There can be no difference in the view we are taking, whether these inhabitants are vegetable or animal, for matter of fact has taught us that vegetable matter is turned into animal by the living machinery; and probably animal recrements into vegetable fibres by the vegetable apparatus.

‡ See Linnæus *Philosophy of Plants*.

mate matter, but there is also a never ceasing struggle between the two; the one to build up, the other to pull down.

The growth of the animal, his short duration, and subsequent decay, makes it a necessary consequence that the animal machinery should at first have a superiority in power over the elementary influence, and then relinquish this power in turn to the steady and perpetual operations of the elements. The space thus taken up forms the life-time of the animal. From the time that the external elements, in their various degrees of application, begin to be a full match, and to get the better of the vital actions, the life of man is but "labour and sorrow;" and the organs of his body become like foreign matter; hence, the pains, stiffness and feebleness of old age. The faculties recede in a regular order: the eyes and the memory are the first to go, and these are soon followed by symptoms of more consequence, which assure the possessor that his body must soon be dissolved, and find its associate elements in the great sea from whence it was derived. Not only must dust return to dust, but even the caloric that warmed the blood will desert to its original home. A like fate awaits the vegetable, very soon after reaching its achme; the fruit becomes abortive, the decaying limbs the sport of winds, whilst the water (once so necessary to its existence) now by merely trickling down the riven bark, plants death in its very heart. But scarcely will it happen to either vegetable or animal to meet this natural outlet to life: "fierce diseases wait around," to hurry mortals off at every stage of life; and the vegetable is not less susceptible of disease and casualties.*

As the action of the common elements (viz. water, air, heat) are so conspicuous in the vegetable, it will serve to elucidate so far as it goes, what takes place in the animal. When a seed is separated from the ma-

* Mr. Willdenow has described, at least, 40 diseases to which plants are liable.

ternal (pericarpium) or seed vessel, the vital principle derived from the parent plant lies dormant and inactive until a suitable degree of heat and moisture is applied; if then it has access to air, it begins to swell by the absorption and decomposition of portions of the elementary materials. These agents, acting on the vital principle, cause it to perform those actions which are called circulation, by which the plant takes up the store of pabulum that composed a share of the body of the seed or wrapper of the plantule, and converts it by chemical changes into a new organic matter, constituting the increase of the plant; so that by such enlargement of the plant, and developement of its organs, it is able to take its future sustenance from the earth and the air.* But should there be more moisture than is necessary, or more heat than is requisite, or both united, the plant sickens, and unless a speedy change takes place, it dies. It is also to be particularly noted, that when dead, those very elements (that caused it first to grow and flourish when applied *in due degree*, and during the full possession and activity of the vital principle) now proceed to decompose the whole vegetable organization, and restore the decomposed elements to the great treasury from whence they were derived. It may also be noted, that when a plantule has been brought out from the seed by the application of those elements; that a recession of them will be fatal to the plant, as much so as an excess. The following inferences may be drawn from the above undeniable facts, respecting a seed plantule, which are equally applicable to animals.

1st. That there is nothing but *different degrees* of the identical agents acting on the vital principle neces-

* The plume and radicle of a young plant have originally different constitutions and arrangement of organs. The plume spreads a greater surface, and it has smaller vessels; thus giving it a greater relation to light and heat, which act powerfully on it; whilst, the radicle being more porous and compact, is more obedient to gravitation, when loaded with water.

See Hale's Statistical Essays, and Sir H. Davy on the Growth and Position of Plants.

sary to sustain life, to produce disease, to cause death, or to effect (when acting on the corpse) dissolution.

2nd. That the full action of the elements in dissolving dead animal or vegetable matter is strictly chymical, and as degrees cannot change the nature of the agents, it follows of course that all the actions produced in health or in disease are of the same nature, though modified by the presence of some restraining principle. (Which here is evidently the vital principle.)

3rd. That the elements, as well as all ingesta composed of them, which are taken in to build up and give action to the animal, are in health *acted upon* by the vital machinery and decomposed; (the animal economy using such portion as are necessary, and discarding the remainder;) whereas, in or after death the external elements act on the animal fabric and decompose it. So that the vital principle is doing the office of a solvent in life and health, but the elements in its absence performs the office of solvent to the animal fabric.

4th. That as disease is an approach to the death of a part or the whole body, that state must be produced by an excess of the elementary action, or a deficiency of the vital action, or both; in all which cases a chymical action becomes prevalent, as is evinced in gangrene, mortification and suppurations, &c.

5th. That a par of action or a cessation of decomposition between these powerful agents, so as to restrain due action, must be a species of disease; and finally that an excess of action may be produced by great vigour on both sides, and endured for a considerable time; but such action will always shorten life and ultimately produce disease rather than a greater state of health; for the system is calculated to a given force and a set time.*

* It would appear that the vital principle *alone* is the agent that produces all motorial action, and all organizations necessary to the system; and that the elements and their compounds excite this vital action in a salutary way only whilst they are decomposed by it, but when not decomposed, (*viz.* the elements.) They disorder and destroy the system by breaking up the specific arrangement that constitutes

CLASSIFICATION.—A variety of attempts have been made to elucidate disease by classification. Such classes should only be established as have strong fundamental distinctions in the great outlines. The best are those that are most evident to the senses, (especially on dissection) such as comprehend the most diseases, and such as will be of real practical use.

The author proposes to make two classes, viz.—diseases of *one cause*, and diseases of *two causes*; which, for want of better technicals, he will call genuine disease and spurious disease,* applying the former term (genuine) to diseases proceeding from two causes.

By *genuine disease* is meant all those disorders that can continue after the removal of their first cause, and of course must have a second cause for their continuance.

the vital machinery; or when they are more moderate in their operation, by exciting the vital principle to improper actions in the animal economy.

The author, however, has to acknowledge his ignorance of the *vital principle*, except from the facts of its operations; speculation is not his object, but he will give some opinions.

Sir Isaac Newton believed that it was derived from without, as heat and oxygen are, and that it is of a planetary nature, as heat is of a solar nature;—for all the muscular actions of the vital principle may be resolved into attractions or contractions, and subsequent relaxations; at least all those actions in which motion is the result—against this it might be objected that it has a decomposing power. Whether these two actions, muscular and chemical, can be associated, must be left to others to determine.

Another idea is, that the vital principle is merely a quality put on by a certain organization or peculiar formation of animalized matter; just as the properties of vitriolic acid ensue from the union of sulphur and oxygen in combustion; against this its apparent power of metastasis and its sudden local exertion under the influence of the will, is an objection.

A third idea is, that it is altogether a parental gift with the body, capable of extension ad infinitum, and of evolving from parent to child over all the animal organization that ever can be formed. In favour of this is the Scripture expression; “And God breathed into his nostrils the breath of life or *lives*; and man became a living soul.”—Gen. ii. c. 7. v.—Thus written for singular or plural, according to Biblical critics.

* These names are very objectionable, as they are no more applicable to medicine than to any other object; if, therefore, they are offensive to any, let them be called *monophysical* and *diphysical* diseases.

By spurious disease, is meant all those disorders which depend altogether on one cause; which of course must be present to keep it up. Most all those diseases which have been induced by changes of weather, are *genuine*; because they continue after the patient is removed from the cold, or the heat, or the wet, &c., which have established a second cause in the system. It will become the writer's duty to point out and explain this hereafter. Nearly all proper fevers and inflammations, attended with febrile symptoms, are therefore items in this class; whilst those diseases which have been induced by some irritating material, or by temporary errors in diet, are spurious; ceasing by the removal of the only cause; hence, common cholics, most fits, worms, &c., belong to this last class.

CHARACTER OF GENUINE DISEASE.—It has for its immediate or second cause an acute derangement *in the substance* of some organ or organs of the system, which have to go through a certain process, according to its constitution and the damage received.* This process will be called an *organic paroxysm*. These are caused, 1st. By some unsuitable degree and application of the elementary powers. 2nd. By acrimonious ingesta, either medicinal, pestilential, or alimentary, establishing an inflammation. 3rd. By violence. 4th. By excessive actions of particular parts; as of the muscles in a fatigue, and of the mind in intense application or violent passions, &c.

AN ORGANIC PAROXYSM consists in some of the following states of an organ, viz.—1st. Acute inflammatory intumescence. 2nd. In aqueous, serous, lym-

* There is a sufficient distinction between the vascular system proper to each organ, and constituting so large a portion of it, and the common extremities of the arteries that pass through these organs to supply them, for to put them under different laws. The large commixture of other organic matter—the ability to secrete different humours from *mere blood*—the very slow circulation of their own blood, are important items to render the former (viz. organs) more susceptible of organic or corpuscular disease, and of course more tardy to get morbid arrangements rectified. It is in these, therefore, (in their substance) that the paroxysms are located, and not in a mere acceleration of circulation in the more pervious arteries that pass through them.

phatic or sanguinous effusions, (or rather in the inflammatory grade that produces such effusions.) 3rd. In suppurative inflammation. 4th. In erysipititious inflammation. 5th. In gangrene and mortification. 6th. In disorganizations from combustion and from violence. Their intensity is nearly as arranged, the first being the most simple and least disease, when the affected surface is of the same extent; a new and morbid order of actions takes place in the system, when one of these paroxysms is established. In the first place, the organ so affected loses its social arrangement or action, and becomes like a foreign body in the general system. In the next place, its secretions becoming corrupt or unnatural, join with the aforementioned cause to irritate the system. But the most obvious effect is the sympathies excited or generated over the whole system. The tout ensemble of which, with the primary injury, constitutes the peculiar disease.* The most notable of these sympathies is that of the heart and arteries. These, by passing through every organ (like rods of iron whose points are in the fire) can scarcely escape a morbid impression; and this corresponds, in most cases, very exactly with the state of the organ. Thus, when there is a pure phlegmonic inflammation, the pulse is strong and quick; and when there is a verge to gangrene, the pulse indicates the low state of the primary organic affection. In this way it becomes a most important index to the general and

* It will be observed that the author has made organic (*genuine*) local disease, the foundation of all the sympathies (or symptoms) of such disease, and not the fruit or offspring of it; this is contrary to most theories, although nothing else appears on dissection; for the sympathies scarcely leave a trait behind them; were the reactions to take place always on the organs that receive the first impressions, or were such organs to come in conspicuously in the symptoms, there would be more likelihood of organic paroxysms being the fruit, instead of the foundation of the particular disease; but, on the contrary, it is a rare case—e. g.—a patient exposes his legs and feet, and perhaps gets chilblains, or an erysipetitous inflammation on his legs; but nineteen times out of twenty he gets some inflammation in the lungs or muscles, producing a specific disease, whilst the legs and feet have no local disease.

☞ See a note in page 22 * on the further difficulty of this point.

primary affection, and even when failing in its uniformity, as it does in affections of the heart, the brain and the lungs, its very irregularity is highly indicative. To this office (*viz.* index) it seems well adapted, as holding a place between the primary affection (or organic paroxysm) and the *prostrated* organs of the system, which form the next set of sympathies. The arterial sympathy is an active one, as before said, but in addition to this, *entire disease* is constituted by a large set of passive sympathies, spreading over all the rest of the system. Thus the *primæ viæ* (unless there be a paroxysm existing there) is in perfect inability. The muscular system is prostrated, and the mind sunk in feebleness. It is both a curious and a notorious circumstance, that in extensive disease, about one half the system is in an over or superaction, whilst the rest is in a sub-action. The most rational solution of this phenomena is, that those secondary sympathies, or passive affections, are dependencies on the arterial disturbances, rather than flowing immediately from the organic paroxysm; thus they are sympathies of sympathies. But still there is a shade waving over this apparent gleam of perception; and it is hard to say, whether the arterial disturbance has merely interrupted the connections of the vital energy existing between the different parts of the system, or whether (taking the vital principle for an element) an accumulated action in one part has necessarily been followed by a deficiency in others.*

It is a well-known fact, that when the arterial sympathy runs high, it is extremely injurious to the organic paroxysm that induced it, and is then no "*vis medicatrix naturæ*," for it extends the local affection beyond its first limits, nor can the primary affection stand any chance of recession, or of one of the more simple effusions, unless that sympathy is moderated by artificial or accidental means;† and otherwise the paroxysm

* There seems something like this in an intermittent, for the moment the *fibrile* paroxysm ceases, the muscles and stomach recover their strength, and the patient rises and often has an appetite to eat.

† Such as bleeding and puking spontaneously or practised.

will terminate in suppuration or gangrene, according to the general state of the system and the violence of the sympathy;* on the other hand the passive sympathies are often of singular utility. But for these a patient would continue his actions, his food, and his mental exertions, in spite of all admonition, till he was irrecoverable; and but for *all* the sympathies collectively, he would die more often in the street than in the bed, and seldom with any foreknowledge of his danger or exit. Moreover, trivial and mortal diseases could only be distinguished by the event. But by the sympathies the physician is directed to the character and place of disease, and even in unknown diseases has a clue to the fountain head—whilst the patient is forced to lay up, and to abstain from things indispensable to a cure.

SANATIVE INFLUENCE.—That there is a sanative power in the system, no person can deny who has seen a wound or ulcer heal up. This power resides in a proper grade of arterial sympathy. It is, in fact, the application of the resources of the uninjured or less injured parts of the system to the local injury. The mere vital system, however, is not indued with a directing power, to fix this sanative grade of arterial sympathy: and of course it is more ready to overleap the proper grade than to hit it—and is frequently found to fall beneath the needful force.† The intelligent principle in man is changed with the proper gradation, and even this requires much knowledge and experience to act with efficacy. But when an organ has received a very extraordinary impression, it may be beyond all sanative and artificial power, and its death must ensue.

* This was Dr. Hunter's idea of gangrene and mortification, viz. that the "action was greater than the power."


† The arterial sympathy, however low, never becomes a passive sympathy. It will be at any rate relatively active, and when low, indicates that the powers of the system are not merely suspended, but exhausted, requiring artificial means, and with such help, the arterial sympathy again extends its sanative influence; for it keeps its old character, viz. *primum vivens ultimum moriens*. Were there any thing like a passive arterial sympathy, asphyxia and death would necessarily ensue; obstructions, however, from diseases of the heart, brain, and lungs, are to be *carefully* distinguished from a simple, low pulse, or depressed arterial sympathy.

It will then be ascertained whether or no the system can dispense with it, and live. But it is not always left to that issue, for a mortification may extend its influence so fully to the arterial sympathy as to destroy the system, even though it could do without the organ under mortification. Death may also ensue without mortification, and that even when the local paroxysm is quite within the sanative range, merely by the long time required exhausting the powers of the system; for every paroxysm will require a certain time to reorganize; *nor can disease cease till this is effected.*

The system being full of tubes filled with fluids may, by certain simple diseases, have these fluids and their secretions so perverted as to produce death, by accumulations and inanitions taking place, especially on important organs, as the brain and heart.

COMPOUND DISEASES.—Although the author has considered in the former pages genuine disease as arising from a single organic paroxysm, yet dissection proves that there may be more, and so much the worse; for as each diseased organ will generate a set of sympathies from its own root, it will at least have a tendency to confuse and render the disease more doubtful, as well as difficult to relieve.

There are certain constitutional sympathies common to all, such as between the stomach and head, the bowels and muscles; and no doubt when disease falls on such parts, the symptoms and disease of course will be augmented. There are also peculiar sympathies belonging to the female constitution, equally natural and constitutional. These have a great range on the system through the medium of the *primæ viæ*, which seems to be their high road. Diseases, however, of the sexual stamp, belong more frequently to the next class, viz. spurious disease.

 See note, page 20, marked †

CHARACTER OF SPURIOUS DISEASE.—The causes and traits of this class are numerous, and the diseases somewhat varied. The author does not expect to exhaust the subject, or attain to any degree of per-

fection; for he has not a path before him, and what are the efforts of an individual? The traits alluded to will be found in the effects of certain irritants (more or less immediately) applied either within or without the system. The irritants are as follows:—

A. All the causes (though in different degree) that produce genuine disease, particularly ingesta.

B. Physical matters; embracing medicines, poisons, contagious and infectious matter.

C. Worms, ulcers, and small solutions of continuity.*

D. Congestions of water or purulent matter deposited by former disease in natural or forced cavities.

E. Chronic affections and false organizations, *slowly* generated in the system, or left by other diseases, which by increase, or false secretion, or tendency to dissolution (as in cancers) awaken up a new disease; obstructions of the liver have here an eminent place; for the system has no room for more than its own machinery, nor any appropriation for false secretions. These things, therefore, act both mechanically and physically, and not unfrequently give a hydraulic turn, of a diseased stamp, to the fluids.

F. Natural paroxysms (of organs) that do not amount to genuine disease, such as frequently happens in gestation and catamenial irregularities.†

* A small solution of continuity, when the sanative action is not extended to it, becomes a source of tremendous disease, by suffering the external elements to produce a violent action and morbid sympathy on parts naturally hid in the system, and protected by the arterial action; for the system is like an Egyptian mummy with its covers, proceeding from finer to coarser. When these are stripped off and the arterial sympathy absent, the full force of atmospheric influence is carried directly or by sympathy to the interior. The action of the muscles in lockjaw must not therefore surprise us; for the greatest action any agent can produce is but its real and just action, and all minor ones are but restraints or masked actions, on parts constituted to repel them.

† The uterine organs, including their pertinents, appear to be the last work of the system in the female fabric; like the flower in the plant, they are the ultimatum; nothing but a new offspring or another individual succeeding; having thus received the actions of every

G. Splinters and fragments of hard bodies inserted into the flesh.

H. Metaphysical operations on the mind in excess or duration. To these there may be many others, that have escaped the author for want of time to consider this arduous subject.*

When any of the causes from A to H act with an undue force on the system (and many of them will always do so) some of the following results will take place. If the irritant acts on the whole system, as is the case in contagious matters, there will be a considerable arterial sympathy, and of course a set of secondary or passive sympathies: this happens in measles, small-pox, &c. If the irritants act by peculiar elective action on an organ of great importance to the system, such as the brain or the heart, there will be an instantaneous prostration of the whole system; but if the poison be in less quantity, convulsions, accelerations, or asphixia will be the result. Such affections will take place after opiates, and the bites of venomous serpents; but the most usual operation of irritants, is on a portion of the intestinal canal, on the muscles, or on the surface. When the parts are incapable of motion themselves, they at least become painful, and the irritation is often extended to some parts that are capable of motion; or when immediately applied to parts that naturally have motion, such parts are accelerated, convulsed, or constricted by a spasm. By such constrictions or convulsions, the blood is

part of the system in their construction, they seem to hold a retrospective and easy connexion with every part, giving tone to body and mind, or depression in disease; hence they become an important index to the state of the system.

* That the exertions of the mental faculties, exhaust the vital principle as well as labour, is a matter of fact; and that even genuine disease can be produced thereby, admits of proof by dissection. But there can be no conclusion from these facts, that such operations proceed from a chemical power: muscular force and steam power can operate identically on a crank or wheel. Let no infidel, therefore, conclude that the mind is material, nor any phrenologist imagine that bumps

thrown from its wonted route, and hence, other secondary diseases are sometimes produced. All the above sympathies arising immediately from the irritant, may be called active, for they are attended with a distinct set of passive sympathies, prostrating the whole system, similar to what takes place in genuine disease.*

As the arterial sympathy is often absent, in this class, and scarcely ever very severe, other causes must give rise to those passive sympathies. Where the disease is considerable, the active sympathies, though not arterial, are quite sufficient to interrupt the usual connexions existing between the different parts of the system, and of course to cause those passive sympathies observable.† The sanative influence appears to have no place in spurious disease, and there is no organic paroxysm, to be benefitted or injured by it. There is, however, a great display of natural sympathies in female cases.

The usual traits of spurious disease are pains, accelerated motions, spasms, convulsions, asphixia.—Spurious disease will sometimes continue till it changes to genuine;* some few diseases seem to partake of the nature of both spurious and genuine diseases, as intermittent fevers,† some uterine affections, and strictures can think!! Would these latter gentlemen settle the account between the wild goose and the whale? With a head ten thousand times less, the goose has a hundred times the capacity of a whale, viz:—seven times the brood, two distinct operations to produce them, two zones to travel in order to perform her maternal superintendence, two senses to elude her enemies, four ways of escaping; walks, swims, flies or dives at pleasure. A phrenological tailor might surely cut out the exact contour of a goose's brain, from so much cloth of cerebrum and cerebellum, making spermaceti of the balance; and thus benefiting both the whale and mankind, he would outwit nature herself.

* No person has supposed that the part primarily irritated in these spurious diseases, is the *fruit* of disease; and as spurious disease will often change to genuine, by an inflammation ensuing at the very spot irritated, it would be strange to make the same spot the foundation of one class and the fruit of the other.

† As the muscular system is never universally affected by any one disease; it is quite possible for the active sympathies to take place in one set of them, and the passive in another.

§ By spasm is meant a concentrated action on or in a part, more than natural, but not so great as to disorganize it and produce a paroxysm: it is always, therefore, in a part capable of motion.

from cold, producing great irritation on the stomach. Spurious disease admits of easy subdivisions, into acute and chronic, general and local. The above traits will enable the reader to see pretty clearly into the arrangements undertaken, and to ascertain whether the two classes have real foundations, which alone can entitle them to the rank assumed in this essay.

GENERAL ACTION OF AGENTS.—As the morbid action of the external agents producing mortification, supuration, and all the lesser organic paroxysms, is according to the principles laid down in page 1, of a chemical nature,* some further explanation becomes necessary. Depending on the axiom that the external elements are no longer engaged in exciting the vital principle to salutary actions, than whilst such elements are decomposed and absorbed; and that when not decomposed and absorbed by the surfaces to which they are applied, they act injuriously, producing disease

* Though it be a great defect in the arrangements of natural history for an article to stand under two classes, yet it is scarcely so in medicine; for, in fact, there ought to be two distinct names for such diseases as are commonly comprehended in one, when they can claim either class: thus cholic, from mere crapula, should have a different name from an inflammatory cholic, caused by cold.

The blood driven inwards by a chill, engorges the heart, liver and spleen, independently of the small primary inflammation, that gave origin to the disease; the heart being most active throws off the blood, by a kind of fever, in the course of an hour, (See M'Bride.) But the liver and spleen being inactive, take one or two days to disgorge, making the time of an intermission. When that disgorgement is fully accomplished, the pulse falls off, and the primary irritations produce another chill. Perhaps when the liver and spleen do not disgorge synchronously, double tertions are produced.

It must be allowed that the chemical actions that produce disease, in common, are not of that complete nature as to effect an entire change or *tertium quid* in the animal fabric; and, therefore, we cannot speak of them as we do of oxygen and hydrogen, producing water by the electric spark, nor could we expect such operations whilst the integrity of the system was spared, nor from the actions of bodies so fully compounded and commixed as all the common elements in their various changes, operating on a body nearly as compound. Those partial chemical actions, therefore, (which are nevertheless sufficiently obvious) are termed *physical actions*—and we perceive their affinity to particular parts of the system in various instances;—thus heat and moisture act on the liver, and *primæ viæ*, whilst cold and moisture act on the lungs and muscles.

in their minor actions, and death with dissolution in their greater operations; it follows as a consequence that they must have in general more access to the system than the relation spoken of in page 1.

There is no need of proving that common ingesta have access sufficient to produce disease, when it is improper in quality or when not digested, even though of proper quality.* But, perhaps, it has not been heretofore so well noticed that most diseases which are suddenly induced, fall on parts to which the common elements have the most free access.† Thus we find that diseases of the face, mouth, lungs, primæ viæ are quickly produced, and indeed of all the exposed surface; and next to the above list, diseases of the great glands, whose tubes reach the primæ viæ. Whilst on the other hand the secluded organs, as the brain, heart, kidneys and bladder, are never suddenly and primarily attacked by any elementary influence. They must be first reached by an excess of action, produced by excessive ingesta, or by mental influence, (when the brain or the heart is the seat) and being thus prepared by an enlargement of the vessels, or false formations, and depositions, they readily yield to attacks from the elementary in-

* The ingesta and the external elements seem to be under the same laws; that is, if they are decomposed and absorbed, they excite healthy actions; and if not, they assume an opposite character, and begin by physical actions to disturb the system, or by more complete actions to destroy it. When digestion is effected, every article seems to lose its own peculiar physical action, and, (however diverse the articles) put on one homogenous character, which acts kindly on the peristaltic motion. Medicines are formed of articles whose physical powers are considerable, and whose components are not easy, if at all, digestible; they, therefore, retain their elective choice of parts to act on. We are much in the dark about the actions of those articles that operate more on parts that they do not approach; nor can we reach to a full knowledge of sympathies, till we are better acquainted with the laws of physiology. This, however, is pretty certain, that the agent will always act on the part to which it has immediate access at the same time it acts on distant parts. Thus cantharides operates on the stomach, or on the skin, whilst it is acting on the urinary organs by sympathy, with more apparent force than on the stomach.

† Heat does sometimes act on the brain, but this has access where elastic fluids are denied, so that it strengthens the position rather than opposes.

fluence, or some small hydraulic change in the fluids, or other accidental cause; violence may also predispose and produce them. Although the limited actions we have termed physical, readily produce disease, and even death, yet it is more clearly shown, in cases of mortification and putrescence, that they are truly of a chemical nature. It may be objected to mortification that it is merely a rot produced by chemical operations, insolated altogether within the diseased organ, and not referable to any external influence. Let such objectors make an experiment with a bunch of grapes put into a jar, without excluding the external influence (by dry saw-dust or sand) and he will soon find the relation existing between the elements without, and those that have originally formed the grapes. In addition to what is said above of such connexions, let us examine into what is going on in the lungs, and we shall find a complete union between the animal economy, and the atmosphere, as well as in the alimentary and external surface: water is freely imbibed on all these surfaces, and caloric decomposed.

VARIETY OF DISEASE.—The diversity of organic paroxysms, as before enumerated, and the effects of the different sources of spurious diseases, as mentioned in page 8, from A to H, are some small evidences of the variety of disease. To this we may add the numerous histories of disease, by different authors; but all these put together do not give us a full view of the variety of disease, nor do they let us so fully into the real causes of so endless a diversity. To have a comprehensive idea of this, we must examine into the number of physical agents, or rather their gradations, as also the great variety of parts they act on, according to their elective capacity or influence. Without noticing the great variety of common ingesta, or the various operations of the mind, we may take the following agents, viz. heat, moisture, and atmospheric air, the latter in the two capacities of chemical action and motion; (see the tables,) making thus four variable agents. Mr. Keil, an anatomist, to show what the com-

mixture of four different secretions would amount to, in their various compounds, puts down four vowels thus, e i o u } and so shews how many changes of position they afford, which may be altered in o u e i } an immense number of ways, by changing u e i o } and compounding. Let us then consider that every degree, or at any rate every few degrees, of the thermometer, from zero to blood heat, will, when united to any one or more of the other agencies, make just so many new operative physical compounds, each of which will have an election to some part, in preference to any other, and so of moisture. We may notice them easily in their more conspicuous operations, when heat and a certain degree of moisture produce summer diseases, and when cold, and another degree of moisture, produce winter diseases; as also in diseases from high winds, or from long calms; and again on their more innocent influence in giving a peculiar physiognomy and colour to nations. But we must now examine into the diversity of parts to be operated upon. Anatomy shows us a great diversity in the organs of the body; their coats, their vessels, their nerves, their humours, &c. Taking the *primæ viæ*, as a large vessel, we shall see a change at every few inches in its structure, from the *œsophagus* to the *rectum*. It has its three coats; its blood vessels, its nerves, all suited to each part. And though anatomy has not shown us these changes in the extreme vessels which form the great glands of the body, there is very little doubt, if they were extended out like a tree, that good glasses would detect such changes in them, at every small distance, as is seen in the *primæ viæ*; and by such means they elaborate their humours, as they pass to the extreme point of animalization. When, therefore, we view this endless physical agency, and an equally great diversity and capacity in the animal system to receive these different influences; and also take into consideration the narrow compass of the salutary range, (see the tables) we shall see the cause of endless disease, and the impossibility of preventing it.

THERAPIA.—CURE OF GENUINE DISEASE.—The indications of cure pointed out by the state of the system, when under a morbid influence or impression, are not only obvious in their great outlines, but also perfectly harmonious with the best modern practice; and it may be laid down as a medical axiom, that whatever theory is now extant, or may hereafter be invented; or whatever new names imposed; or pathological discoveries made; *the main body of the practice cannot be overturned*; for it is the experience of ages.*

When a patient is reported to a physician, his immediate duty is, if not already done, to remove any of those *first* causes that have deranged the system; whether they be cold or heat, or wet, or acrimonious ingesta, &c.; nor is it sufficient to reduce these agents to a healthy standard, (see the tables) they must be reduced or altered so as to suit the increased debility and susceptibility of the patient. In the next place, (supposing the disease to be of the phlegmonic standard) the arterial sympathy requires a reducing so far as to relieve the organic or local disease from the reaction of circulation; and this reduction generally requires the pulse to be softened down below the standard of health, to meet the necessities of the primary affection, and give it a chance of recession or moderate effusion. This object is to be accomplished by various means: the principal one is bleeding, the next is the removal of all irritants within the *primæ viæ*; for, as before said, when that canal is in a state of passive sympathy, the contents (not being dissolved and changed by digestion, &c., as in health,) excite improper actions; and hence, they are found to excite the arterial sympathy, rather than the peristaltic motion. By discharging such crapula, bile, and foreign or morbid secretions, with proper medicines,† a variety of objects are obtained; for the bowels being restored, in part, to their wonted action, the distribution of blood over the system is

* The French pathologists have, however, made this vain attempt. See Brosais.

† Care is to be taken to use such purgatives as will not excite the

equalized by it; and by the removal of improper stimulants, the arterial sympathy subsides. It is also a well-known fact, that so long as the bowels remain in a state of passive sympathy, and the circulation kept up, that the more delicate and secluded organs are wont to suffer from the unnatural distribution of the circulation; and hence, pains in the head, in the kidneys, and lumbar region, and often about the heart. The arterial sympathy may also be reduced by **SUDORIFICS**. These medicines, by relaxing the surface, and promoting a discharge of humours, tend greatly to lessen the arterial sympathy; as the circulation is then *temporarily* distributed, more extensively than in health.*

ABSTINENCE is another means of lessening the arterial sympathy. The effect of twenty-four hours abstinence is readily perceived in the countenance, and we have every reason to believe that the effect is the same on the internal organs; so that the vessels have an opportunity of regaining their elasticity, and by contracting, propel the morbid engorgement.

BLISTERING. By constituting an artificial disease, and set of sympathies (which experience has taught us to be safe and harmless) at a time when the arterial sympathy has been partly reduced, we gain a new distribution of actions, and the arterial sympathy is farther reduced.†

The last method of reducing the active arterial sympathy; such as salines and antimonials, with other antiphlogistic drugs and medicines. &c.

* The effect of a cold bath shows very plainly that the circulation may, by such artificial means, be brought farther out (for a while) on the surface; but as there is no relaxation, there is no sweat; whereas, in an intermittent febrile paroxysm, when the blood is brought out (in the hot stage) a sweat soon ensues; because the surface is so relaxed. The medicines used to procure sweat are strictly accordant with this fact; for when articles relaxing the vessels, such as nauseating and saline medicines are mixed with stimulating articles, such as weak ether and volatiles, they make our best sweats, and opium, which combines both properties, by a very small addition of the nauseating medicines, is the most sure sudorific.

† It may be simply by the extension of the sanative force to the new artificial disease or blistered surface, which on the principle before stated lessens the magazine.

pathy is to make incisions (when practicable) into the inflamed organ, where the organic paroxysm exists, and thus let out, at a proper time, the congested humours by a shorter way; this is coming at the root of the matter; the whole system then feels an instantaneous relief and benefit.

All the aforementioned means are only applicable to the active sympathies of disease, existing in the arterial system, which required reducing; whereas, the passive sympathies would require an opposite practice. These sympathies, as before said, are found to occupy the *primæ viæ*, the muscles, and the brain. We have already said enough as to the restoration of the actions of the *primæ viæ*, by purgatives, and by pukes, (page 15.) The question is now, must we excite the muscles and the brain? In answer to this it may be replied, that both those organs recover their energies very rapidly when left to mere rest. But could we command an excitant that would act exclusively on the muscular system; it might be used to advantage provided it acted on the main body of those passively affected, with an uniform and moderate force; and was applied at such time as would ensure the command of them. But we know of no such article. The galvanic action would only excite violent and partial actions without control; we have, therefore, to commit them (the muscles) to rest, and to general tonics when they can be administered.

In such diseases as we are now speaking of, muscular motion, by its immediate and natural effect on the circulation, would be quite inadmissible; whilst in diseases of a low grade they would exhaust themselves and the rest of the system. On the mind there is full scope for metaphysical stimulants; but they are objectionable from their want of steadiness and regulation, so that the physician in most cases tries only to excite the most steady, such as cheerfulness and hope; which, however, have a great effect.* Perhaps, in some case

* The most extraordinary cures of wounds, under unusual delays, made on the sailors, at Lake Erie, in the late war, are attributed by

hereafter to be mentioned, more might be done in the metaphysical way. When by the united application of the above means, or whatever part of them was necessary, disease is on a full retreat, the intelligent practitioner does not leave his patient to nature, or a *vis medicatrix*, he well knows that it will sink, in many cases, as far below the standard of health (in action) as it was above it. He, therefore, meets the coming debility on the *road*, and exhibits his tonics and restoratives in due time, graduated to the time and case; lest, when the disease is cured, and nature makes a dividend of the remains of strength, there be not enough for every part; and the patient dies of asphyxia. This is dying by the hands of the doctor!! And further it may be remarked of organic diseases that have ensued on a general morbid state of the solids; (such as in typhus) that the point of time to support the system after depleting, &c., will be rather in the middle than in the end of the first set of symptoms.

It will be perceived that all the foregoing observations relate to a phlemonic grade, and we must now attend to the indications of cure in the lower grades of genuine disease that are attended with a typhus or gangrenous disposition of parts. In some case this state of an organ will take place without any previous general debility of the whole system; but, in other instances it will be preceded by a general bad habit; generated by improper diet, or by the relaxing influence of the soil or climate. In both cases, however, the organic affection institutes the same series of sympathies, and give the low tone to the system. But notwithstanding this latter circumstance, (*viz.* low tone of system,) the arterial sympathy is *relatively* active, as it is in the higher grades aforementioned.

The indications of cure are then to raise the power of the arterial sympathy, by tonics, to a sanative height that it may [as being the first relieved] extend its

the surgeon to the exhilaration of the mind. Only one surgeon being able to officiate, the other being sick.

influence to the more diseased organs; and in the mean time to make topical applications to the diseased organ, if practicable, of the most antiseptic medicines. But in such cases as where the whole system has been previously sound, we are warranted in raising an artificial disease on the sound parts, near to the organic affection, upon the idea of Dr. Hunter, that the action has been greater than the power; and as this action may thus be scattered without lessening the power of the diseased organ it becomes salutary, and prevents an extension of the local disease. Hence it was practised with great effect in our army on bad wounds, in the late war, by Dr. Wallis. Opiates have been used by some surgeons upon the same principle, viz., dispersing the action. With respect to the passive sympathies, in this grade, little can be done. The muscular system must depend chiefly on rest and general tonics for its recovery. Tonics, however, might reach them topically.* The passive sympathy of the mind is to be watched, so that it be not farther depressed by the news of untoward circumstances, and it is to be exhilarating if possible, with cheerfulness and hope.

CURE OF SPURIOUS DISEASE.—This is more complex and varied than the former class, and perhaps more difficult to accomplish in some of its forms. In such cases we experience the want of medicines of a powerful kind to act *exclusively* on the organs, where the most violent sympathetic actions are located; unfortunately our powerful drugs act so extensively, that they are too apt to do as much mischief as good. In all those cases of spurious disease [letter A] that are identical, but of less degree than those producing genuine disease; very little more than a removal of such causes is necessary to accomplish a cure. Thus when the patient is stunned with cold, or faints from heat, or is oppressed or choliced with crapula, irritated

* The author tried a sponge bath of warm tincture of bark, for this purpose, in the yellow fever, of 1793, at Baltimore; but could not be very certain of its effects from the mortality of the disease. The yellow fever, like small-pox, seems to have established its paroxysms all over the system, but in more mortal parts.

by worms or acrimonious drugs: the cure is plainly a removal by proper means, or a neutralization if practicable. But in some cases the sympathetic actions will be so strong that life will be in danger before a removal can be accomplished; or some particular important organ so oppressed, that life would soon be extinguished. In such cases the indications of cure are to depress the active sympathies, or to stun them by opiates, and to excite the depressed sympathies by external, and by internal, stimulants: such as wine cordials, ether, warm bath, sinapisms, blisters, or even by electricity in some cases. It will often happen when irritants of great power are taken in, or long continued, that the disease will change its form and become genuine. Thus, when arsenic is taken, it often leaves an inflammation that continues disease after the arsenic is evacuated; in such cases the remedies for inflammation are to be substituted for the antidotes of arsenic.

When either contagious matters or poisonous effluvia (see letter B) have excited in the system a general sympathy, care must be taken that the arterial action be kept in due bounds, by the means directed in page 20, lest its excess should form an organic affection; so that when the morbid matter has passed off a new source of disease might ensue, making a genuine disease, or a secondary fever; this often happens in small pox, where the organic paroxysm consists of ulcers on the surface, the same event will take place in measles, scarlatina, and some other diseases.

When an accumulation of water (letter D) becomes an irritant, the disease may be temporarily relieved by its discharge; but a permanent relief can only be attained by altering the state of the parts that secreted it, or otherwise forced it out of its circulation; this is as often a genuine as a spurious affection. If, however, mere relaxation has been the cause, tonics are to be used generally and freely.

Obstructions in the large glands (E) that have been formed by former disease, but now have lost all connec-

tion with such disease, and still forming no independent disease of themselves,* will often by thir irritations excite, or cause new diseases; not only the watery collections above mentioned, but many others: such as constipation, dyspepsia, hysteria, and hypochondriasis. These indurations are not always in a perpetual state of warfare with the system, but like other enemies watch their opportunity, and when the system is weakened, or they a little vexed themselves, spread their irritations over the whole system, producing some of the aforementioned diseases. See the chapters on such diseases, for the proper remedies. But when those irritations are more permanent, though less formidable, exciting unpleasant sympathies, such as pains about the side and shoulder: as also giving a turn to a dejected state of mind, they are to be met by such means as will stop a farther increase of the local disorder, and reduce it, or give the obstructed gland more room for self action, and thus cause it to disturb its neighbours the less. This is to be effected by various means, (if the patient be a female) by removing all cramps: such as stays, corsets, and lacing; and in both sexes by reducing the volume of the body;† which may be done by fasting, thin diet, and exercise; as also by bathing in hot or cold water, according to the season, or in medicated baths, (acid or alkali) which by removing obstructions on the skin cause a greater perspiration, and emaciate the body. By this reduction, not only the indurated gland is lessened, but there is more room for it. Another means of giving it more room is to use a condensed apperient food that will never generate a flatulency, or disturb the stomach:‡ such as rice, mush and milk, rye mush, &c. To the above a mercurial course, with the most gentle preparations of that article, may be used, and the mineral acids also. How these operate is hard to say, but as they are found

* See the different grades of hepatites; it is only the simple indurated state of the glands that is here meant.

† Fat persons suffer the most in obstructed liver and spleen.

‡ Veterinary surgeons never allow a short winded horse much hay; they know the effect of distension.

to soften and stimulate the gums to discharge, we may suppose they perform the same operations on the liver. Gestation, at proper times, is also found, by experiment, to improve the circulation in those obstructed glands, and to help them to perform the duties they owe to the animal economy. In more urgent cases the raising of an artificial irritation, near the pained parts, (by blisters) will draw off some of the sympathies of the disease.

Purulent humours, (D) from ulcers, by discharging their matter into parts of the system, or by being absorbed, produce an irritation causing lax, hectic fever, &c. The healing of the ulcer, and when that cannot be effected, the removal of the limb or tumor is the only cure. And in all irritations from foreign matter, or unnatural tumors, generated in the system, permanent relief depends on a removal of them.

Those tremendous diseases that have been induced by splinters, or small *solutions of continuity*, neglected and unhealed, are not as yet sufficiently under the control of medicine. The most rational plan is to make a new and more extensive wound, so as to destroy the present connexion and sympathies, and by cutting a sufficient plexus of small blood vessels (avoiding sinews and nerves) to increase by stimulants of heat, and local medicines, a sanative process, or suppuration, in the wound; and then, or before, to blunt those extensive active sympathies of the muscles by opiates, exhibited in the most regular, and *unremitted* manner, day and night, so that their influence may be continual; taking great care, when the least advantage is gained, to push in powerful tonics; as also to remove, regularly, the passive sympathy of the bowels, by stimulants rather than mere evacuants. The exertion of the muscles debilitates the system so fast, that unless the debility is opposed in the first recess of disease, it will be too late; and an equal distribution of remaining energy, in such case, will be found insufficient for life.

The menstrual changes, and gestation also, (F) have been considered by some physicians as states of

disease; but this is going too far. If a luxurious and negligent practice in some females make these states *disease*, it is not to be imputed to nature; when, however, from neglect or accident these organs fall into irregularities, (i. e. in catamenia) irritations will ensue that reach the whole system, forming a variety of diseases; and when these are removed the system must be put into the best and most natural state before another return, which is to be done by temperance, exercise, bathing, aperients, tonics, and by articles reaching in their elective actions the organs themselves, and by local applications when needed. The same remedies apply to most of the diseases of gestation; but in both cases, when violent symptoms ensue, or are likely to take place, the use of the lancet is indicated to equalize the circulation in the full pulse; and opiates with other stimulants in the reduced pulse; for those diseases are according to circumstances, items in both classes.*

The diseases resulting from excessive metaphysical operations (H) on the mind, are of both classes. When belonging to the first class, they are to be treated as the rest of the phlegmasia; but when they belong to the second class, management to counteract the irritation is the principal thing,—by a removal of the obnoxious or desponding ideas, and substituting those of an opposite cast;—by travelling, and thus inserting in the mind an entire new set of ideas, much may be done. As to medical means, the regulating the bowels, and in some cases the use of cordials and opiates may have a place, as also blistering the head, and the cold bath to tone up the nerves. The diet must be suited

* The *essential character* of genuine disease consists in a derangement, more or less permanent, of the economical vessels that constitute an organ; so that such derangement exists after the cause is removed; and hence it is capable of becoming a cause of general disease. The *essential character* of spurious general disease consists in the integrity of the organ; hence spasms, irritations, accelerations, convulsions, and asphixia, are the effects which are kept up by the presence of some irritant within, or by the common physical powers let in, by relaxation, to parts from which they were naturally excluded.

to the state of digestion, and emaciation, or corpulency of the patient.

LOCAL DISEASE may be considered as a subdivision of spurious disease. The simplicity of such diseases, and their empirical cure excludes them from a paper like this: they require mere detail. Mr. Willan and others have, however, given them a pathological arrangement that might entitle them to a place; but the author has no right to make a copy. A small solution of continuity may be considered as a local disease.* If it be argued that large and small ought not to be separated; we must point to the *usual* effects on the system as our guide. Degrees in this system make life or death, and these are not an unit.

* We may observe that lockjaw is not a *symptom* of a small wound, it is a distinct disease that will happen without a wound. There is no necessary connexion existing between a small wound and lockjaw; all is accidental and consequential; the wound is sometimes closed, and still lockjaw takes place. There is some difficulty in this disease, (*viz.* lockjaw,) for it appears in many cases to be without a cause existing either in the system or without. But by remembering what is before said, in page 20, we see that the system in the interior is protected by the coverings; and by the energy of the vital actions; and, of course, when these are reduced, or laid open, the system is exposed, in some parts at least, to the atmospheric influence. When, therefore, a warm climate has debilitated the muscular system to a certain point, the application of something extraordinary, such as a cold bath, or laying a long time on the cold ground, overthrows the remaining strength, and then the system is fairly exposed to atmospheric influence; which, in fact, is only a little more embodied in the cold of the bath or ground: so that there is but *one* cause, *viz.* the system laid open by wound, or relaxation, to the atmospheric influence on the nerves and muscles. Irritations have the same effect, in overthrowing the muscular energy, as the bath or the ground. Now if there were any necessary relation between the small wound and lockjaw, so there must be between the bath, or the ground and lockjaw, which is absurd.

Tables showing that all the elementary and natural powers that produce life, produce disease and death, merely by changing of their degrees, in deficiencies or redundancies.

A, agents acting from without on the body.

1. HEAT ESTIMATED BY THE THERMOMETER OF FAHRENHEIT.

| | | |
|-----------------------------|-----------------|--|
| 1 to 25 morbid deficient. | Specifications. | Cold of Siberia, or Terra del Fuego, see Cox's Travels and Cook's Voyages. The natives cannot endure the climate, out doors, for but a few hours at a time. But when in our climate, the thermometer falls to those degrees, it produces death among the old and infirm; diseases among children; and to all ages rheumatism, pleurisy, scarlatina, influenza, catarrh; as also many local diseases, as chillblains, erysipelas, frost bites, ulcers, and itch. |
| 25 to 80 salubrious range. | Specifications. | Changes from 25 to 80 are always salubrious when slowly and regularly made; but when they become rapid they are the source of many diseases: when falling off, producing rheumatism and catarrhs in particular; and when the reverse, or rising from 25 to 80 too rapidly, causing cholera, fevers, and dysentery. Imitations of such changes are, of course, very injurious; and hence, the colds and consumptions from going from a warm dancing room, into the streets, in wintry nights. |
| 80 to 100 morbid redundant. | Specifications. | All countries, under or near the equinoxial line, are not long endurable out doors, even by the natives; but to foreigners they bring on cholera, dysentery, yellow fever, bilious fever, dropsy; and when these degrees of heat happen in our temperate zone they produce the same diseases |

2. MOISTURE, ESTIMATED IN IMAGINARY DEGREES, IN A SCALE OF 100.

1 to 10 deficient.

Specifications.

Drought of an African sirocco, or Arabian desert; see Bruce, Hamur, Riley, and the African Magazine. The surface inflames and ulcerates; cholera, dysentery and fevers prevail, and death almost without disease to the infirm. The seams of the floor open, the earth cracks apart, and the ink dries in the pen so as to preclude writing, animals dry up instead of putrefying. It would, therefore, be impossible for the human frame to endure it long.*

20 to 60 salubrious range.

Specifications.

Upland country, sandy or porous soil, at least 4 miles from water courses, mill-dams and ponds, with all the advantages of a full and rapid draining of its waters; not subject to the overflowing of its rivers, nor to equinoxial rains, exposed to northerly land breezes, rather than to eastern, or southern, or to sea breezes.

80 to 100 morbid redundant.

Specifications.

Skies filled with black clouds, humid foggy atmosphere, long rains, flats covered with woods, flats with tenaceous soil that are not drainable. The neighbourhood of rivers, ponds, and dams, or large meadows, the rainy season of hot countries: producing malaria, dysentery, scurvy, catarrh, consumption, rheumatism, palsy, &c.

* It is probable the Egyptians took this hint to dry and embalm, in a slow oven, their mummies; for they would not have wanted the time for mere embalming, (viz. 40 days,) but for drying the body; and by mere long steady heats, they discovered that chickens might be produced in quantities. It was so simple that it was not described.

3. ATMOSPHERIC AIR ESTIMATED BY ITS GRAVITATION, QUALITY, AND MOTION.

| | | |
|--------------|-------------------|--|
| Gravitation. | Morbid deficient. | Too much rarified as in high mountains, the Alps, Andes, and Himalaya, producing asthma, homoplysis, fulness in the head, and vertigo to travellers; and in mountainous countries, as the Grisons and Swiss country, producing goitre among the inhabitants. |
| | Salubrious range. | Hills and table lands from 50 to 500 feet above the level of the sea. |
| | Morbid excessive. | Mines and all deep subterraneous abodes, which, though they become endurable to sound constitutions, lessen the period of life. |
| Quality. | Morbid. | Incarcerated air of cells, close buildings, ships' holds, or effete from the respiration of numerous animals, or impregnated with water that has transuded plants, or any how become loaded with animal, vegetable, or mineral effluvia, or with contagious matter: producing cholera, typhus fever, fluxes, influenza, consumption, &c. |
| | Salubrious. | Pure air of temperate dry countries, passing over woods, lawns, cultivated fields, gardens, and water falls; among hills and dales, wafted by breezes issuing from clouds, "the beauteous semblance of a flock of sheep." |
| Motion. | Morbid deficient. | West India calms, long smooth seas in warm latitudes, producing languor, fever, diarrhea, mental insensibility and derangement; see the accounts by sea captains. |
| | Salubrious. | Pure western and northern breezes, of moderate force, with due interruptions, proceeding from a few white clouds. |
| | Morbid, violent. | Storms in the north seas, Cape of Good Hope, West Indies, our own equinoxes, and in great deserts, producing sore eyes, ear ache, tooth ache, sore throat, rheumatism, and palsy. |

**B.—AGENTS ACTING FROM WITHIN, INJURIOUSLY OR SALUBRIOUSLY,
ACCORDING TO DEGREE OF QUANTITY AND QUALITY.**

| | | | |
|-------------------------|--------------------|----------------|---|
| 1st. CORPOREAL INGESTA. | Deficient, Morbid. | From Quantity. | Using articles deficient in nourishment and quantity, as in sieges, long passages at sea, or travelling in deserts; producing emaciation, diarrhea, dysentery, scurvy, typhus, fainting and death. |
| | Salubrious. | | A due mixture and quantity of animal and vegetable food suited to the age, constitution, and exercise, of the person, once or twice a day at most, with light beverage of coffee, or tea, or milk, at night. Mr. Wesley says, old men require but one-third the food of young persons. But in our country one-half to three-fifths is nearer the point; those who disregard this (if hearty,) may be sure of apoplexy, angina, fistula, gout, &c. |
| | Redundant, Morbid. | | Gormandizing, eating meat three and four times a day, with sauces and wines, without exercise. The certain end of such is apoplexy, angina, fistula, cancer, ulcerated legs, dropsy of the chest, gout, &c. |
| | Morbid. | From Quality. | Bad diet, such as meat too poor, or sickly when alive, or fed on improper food: as hogs and poultry on animal's offalls, meat killed too long, stale fish, rotten and stale vegetables, sprung wheat, ergotted rye, sour bread, unripe fruit, &c., mixed perhaps with vile rum, or bad water. An innumerable host of diseases are the consequence: eruptions, ulcers, worms putrid fever, fluxes, &c. |
| | Salubrious. | | Corn fed hogs, fat beef and mutton, just from the stacks and pasture; fat veal, at least six weeks old, just from the cow; fat game and fish, in season, recently taken and well preserved; with a proper mixture of bread and spring water, as also a full portion of vegetables just from the garden in summer, or well preserved in winter. |

2nd. MENTAL INGESTA, ACTING FROM QUANTITY OR QUALITY.

| | | |
|-----------|-------------------|--|
| Quantity. | Morbid deficient. | Deficient study, apathy, thoughtlessness; causing idleness, nakedness, and its diseases, drunkenness, fatuity, madness, suicide. |
| | Salubrious range. | Study, suited to the age, capacity, and taste, that will give activity to the mind without injuring the body by its quantity. |
| | Morbid excessive. | Excessive and protracted study. The study of difficult subjects, especially when continued into the midnight watches; more especially when not interrupted with exercise and recreation of mind; producing dyspepsia, nervous diseases, piles, &c. |
| Quality. | Salubrious. | Study of the bible, ethics, science, belles lettres, logic, arts, inventions, &c. |
| | Morbid. | Studying wicked books and practices, superstition, deism, and atheism, as also the study of nonsense: such as ancient astrology and modern phrenology; leading to infidelity, immorality, derangement, suicide, and perhaps murder. |

| 3rd. | MUSCULAR ACTION. |
|--------------------------|---|
| Morbid deficient. | <p>Confinement, inactivity; by these the system loses the assistance of the muscles, to carry on the circulation; and the consequence is the circulation languishes, the feet and stomach get cold, indigestion ensues, and when digestion does take place, the disease is only transferred to the extremities, in gout, or to the heart, in obstructions. Females suffer much from inactivity. The doctrine of making up the force by an increase of food and stimulants is the doctrine of death.</p> |
| Salutary. | <p>All exercises of a moderate kind, during the day, from an early hour: such as working, walking, riding, swimming, &c., interspersed with periods of rest and study every few hours; producing a light circulation, a gentle perspiration, a good appetite, cheerful spirits, and sound sleep.</p> |
| Morbid excessive. | <p>Excessive or too long continued exercise, producing fatigue, which lays the foundation of fevers, cold, and consumption; excessive exercise, also produces emaciation, loss of appetite and low spirits, as in slavery; and in some cases ruptures of the vessels.</p> |

N. B. The above tables might have been extended to all the senses; but these examples will be sufficient for the work.

There are a few sections in the above tables that relate to qualities that do not depend on mere degrees; they have been inserted to make the tables a more perfect exhibit of the causes of disease; and they will, moreover, show the great preponderance of the latter, (viz. degrees:) perhaps a more minute analysis of those under letter A, 3, may show that even those qualities are dependant on degrees of the components of the common elements. We readily notice degrees of heat and moisture; and attribute many diseases to them; and there is no good reason why we may not suspect degrees of oxygen, carbon, and even azote, distinct from a proper standard to be the cause of many diseases. And as to infectious matter generated in the system, there can be no doubt that the primary cases were produced by improper actions, produced in the system by unsuitable combinations of some of the agents enumerated in the tables.

GENERAL MANAGEMENT.

DIRECTIONS.

A few observations, on this most important object, will be well worth a place in a book of the present character; for many dreadful diseases might be avoided, and others rendered curable, by proper management. We shall divide the subject into three stages:—

1st. *In the early part;* as soon as a person feels himself indisposed, he should cease from all exercise, and if the weather is cool betake himself to the fireside, and if warm retire from the sunshine and winds to the house; and if the symptoms are threatening the bed will be his best place. He ought to eat nothing solid, but merely take a little tea, or thin broth. When he is ignorant of what disease is fixing on him, he should not wait but get the advice of a physician; this, in some diseases, determines life or death, especially in natural small-pox.

2nd. *When disease is established.* A prudent man, though he may believe himself a judge of what he may want, will consider that his faculties are soon weakened by disease, and that he should, therefore, in good time give his friends directions to act for him. The directions must extend to restrictions on company, the suppressing of noise, the cleanliness of the room and clothes, the temperature of the bed clothes and of the room, the diet, drinks, and medicine, as also the nurse; giving proper directions on each head. Even the admission of light and air should be committed to competent judges; a room can scarcely be too cool in summer, nor too well aired; but in winter it may easily be too hot for inflammatory disorders. What is pleasant to well people is sufficient for the sick; but in diseases of the lungs, or cholic, especially in old people, more warmth will be necessary than in most other cases.

It would be well for him also to make a will, if not done before; *and above all to attend to the things that make for his eternal peace.* A mattress in summer is all important in febrile cases, and the poor may have one of the typha, or cats-tail of the marshes, that will rival, in comfort, the bed of a prince. Rooms with sick should be purified by chloride of lime; and the bed in summer placed in the middle of the floor. If the floors cannot be scoured they may be rubbed with a stone and some sand, as is done in the hospital at Fortress Munroe. One of the most insidious practices with sick people is that of talking themselves sick again, when they are on the recovery, by giving their friends an account of their disease. In diseases of the lungs, or throat, it is a frequent source of relapse. This should be stopped; and it would be a good practice in this, as in some other countries, to have signals at the door: such as a quill put through the keyhole, or a slate hung outside to receive the bulletin from within, and the compliments from without.

3rd. *In the advanced stage of disease.* As disease advances care must be taken to support the patient by having drinks of a nourishing kind: such as barley water, gruels, panada, rice water, milk and water; and in low cases wine-whey, milk-toddy, and broth; for want of attention to such things, in due time, the patient may sink when he has little or no disease.—When a patient has lost much strength by a continuance of disease, or by a sudden hæmorrhage, he should not be suffered to rise from his bed, for any purpose, lest a fatal fainting ensue; bed-pans and urinals should be ready. The author saw two fatal cases in one family, in less than six months, from such neglect; and has a knowledge of some more that died from that source alone, when the disease was vanquished.

There are many diseases that will require medicine to be given by night: such as quotidiens that come on at nine, or ten, in the morning. A vigilant nurse is all important in such cases; as also where opium is given at stated hours: the mere failure of a pill, or two,

will derange the whole scheme. Two attendants, at night, are needful in all important cases.

In dressing of blisters, and in shifting of linen, and in sweats, the patient should not be uncovered but for a moment; all things should be ready, and applied in an instant.

In the more early parts of disease, where patients have to rise often, (as in dysentery) they should have socks, drawers, and gowns, and they will be very useful in most cases throughout the disease. After recovery, every practice, eating, walking out, work, &c., should be recommenced by degrees; and the dress suited to the weak state of the patient.

N. B. Let no person venture to put coals in a room, without a chimney, to warm a patient. It is frequently done, under a false impression that nothing but charcoal is mischievous; vertigo, nausea, apoplexy, and fainting to death, have been the result. In a tight small room it will certainly produce death, in six or eight hours; and many a poor patient has died from such cause, unknown to his friends, and unsuspected.

FEVERS.

CHAPTER I.

OF FEVERS IN GENERAL.

Fevers admit of a twofold distinction: one as respects their duration, the other as respects the state of the system; their duration is either *intermittent*, *remittent*, or *continued*; their condition is either *inflammatory*, *bilious*, or *typhus*.

INTERMITTENTS are called *quotidian*, when the chill, fever, and sweat, (called a *febrile* paroxysm) comes on every day. *Tertian*, when the febrile paroxysm comes on every other day, leaving an entire well day between; and *quartan*, when there are two well days between each paroxysm.

There are also some compound forms of tertian, viz. when there are two paroxysms in one day, and only one on the ensuing day; and again, when there is a paroxysm every day, but are only alike on alternate days as to their time of accession: thus, Monday, a paroxysm at 11 o'clock; Tuesday, at 4 o'clock; Wednesday, at 11 o'clock; and Thursday at 4 o'clock. The former of these compounds is called a double tertian, and this last might be termed a tertio-quotidian-various; other names, however, have been given to these compounds: such as semi-tertian, and duplicate-tertian.*

REMITTENT FEVERS abate once in 24 hours, and that abatement is of various duration, from half an hour to 12 hours. They are more apt to have a chill at the offset than afterwards; as also to have a full sweat only at their final termination, than at any intermediate period. The common returns are marked with coldness, or some pain and restlessness; in many instances hardly perceptible. In some epidemic cases they are very

* They generally become simple before they go off.

mortal fevers; whilst in others they are as slight as intermittents. They are, however, in solitary or sporadic cases, a dangerous fever, frequently ending in death; which generally happens from 5 to 14 days after the attack.

CONTINUED FEVERS have little or no variation in the 24 hours; they are worse at night, having rather accessions than remissions. Their duration is from one to three weeks. They frequently come on with a chill, and are always, when of any force, dangerous fevers.

INFLAMMATORY FEVERS show no material departure from the natural state (as respects the nerves and secretions) till very late and near death; nor in the bile at any time. They have in most cases a strong full pulse; but are sometimes found very pertinacious, though the pulse is under no very great excitement. They are commonly attended with pains in the head, back, and limbs; sometimes in the breast. The tongue is white at first, but as the disease advances will often change and become covered with a brownish sordes. The bowels are disposed to inactivity; but the stomach is no ways disordered, excepting by mere loss of appetite. Inflammatory fevers are far more common in the spring, and late fall months; and are found in high dry situations, far from water courses. The causes are as follows: intemperance, great exposure to rains, winds, or both at the same time. Heat and cold in quick succession, fatigue and all irregularities. The young and the vigorous are the subjects of this fever. They end in perspiration, effusions, hæmorrhages, and suppurations discharged by the bowels, or from the surfaces of the bowels; in long continued cases external suppuration often takes place. They afflict those of the middle and northern states.

BILIOUS FEVERS attack almost wholly in summer and fall, after the system has been relaxed by the heat of the seasons. The whole primæ viæ is much disordered, and bile is often discharged spontaneously; but always on the use of emetics or purgatives. The

skin, eyes, tongue, and urine, are often coloured with it. The liver, spleen, and stomach, are sometimes decidedly inflamed, and perhaps never escape entirely. The liver and spleen are often enlarged. The worst cases end in mortifications of the parts locally affected.

The tongue is white in intermittents; but more often yellow or brown in remittents, with a fur or sordes.—The pulse is sometimes full in remittents, but not always so; the strength and rapidity of it rises from merely more than natural, up to the highest pitch it is capable of performing; according to the degrees and violence of the disorder. In intermittents the pulse is always full and strong during the greater part of the hot stage; but quick and generally small in the chill, owing to the contraction of it. The head, and loins, and abdomen, are often affected in remittents; and when the two latter are considerable, they are considered as unfavourable symptoms; portending a severe fever.


Intermittent and remittent fevers appear dependent on the same general causes. In solitary remittents, the patient is (besides the climate and place) indebted to some irregularity for his fever; such as would come near to give him fever at any time or place. But in an epidemic state of the air a very trifling cause will excite this fever.

Intermittent fevers are so much indebted to predisposition, from place and season, that they will ensue often without an apparent exciting cause, and in general require nothing more than exposure to a rain shower, a cool blast of air, a little fatigue, or indigestion, to bring them on.

Bilious fevers prevail in low and high lands, when near to streams, ponds, mill-dams, &c.; they prevail also in shallow soils, where there is a substratum of rock, such as at Malta and Gibraltar, where the heat of the soil forces the water back, and when the air is cool the humidity is condensed and thrown down in fogs, or invisible vapours; thus macerating the surface, obstructing the perspiration, and affecting the process of the lungs.

In long dry seasons, when the shores of running rivers are extensively laid bare, we may expect malaria to reach beyond their accustomed range; and thus meeting with a people of inflammatory habits, unused to the annual visits of such fevers; and treated by physicians unexperienced, (in malaria) it becomes a mortal scourge. This has happened repeatedly, the last half century, on the Potomac and Susquehanna.

TYPHUS FEVERS are most common in the fall and spring, though follow into winter when the frosts are light and late; especially when the summer has been sickly. They observe in the country certain geographical lines, just as intermittents do. Their location is the higher flats where water is retained; but from the coolness of the ground produces no fogs, only heavy dews at night; such a district is equally unsuitable to produce the bilious or the pure inflammatory fever. In the great ascent from Baltimore towards the mountains, this fever is common at the distance of one or two miles from the water courses; and all along the water courses bilious fevers are common, whilst the elevated slopes with a porous soil have neither; (when mill-dams are at a distance,) but have instead pure inflammatory affections.

In those elevated flats above mentioned, among poor people, or recent settlers from other soils, we may find typhus as long as the world stands; though generally of the milder cast. Typhus fevers are also prevalent in large towns, on rivers or bays. Their pavements and walls prevent malaria, except when there is a long course of winds from the waters, at the proper season; and though the citizens live so as to produce inflammatory disease, yet they add thereto the filth, &c., that is one half the cause of typhus; an impression is therefore made producing inflammations of an effusive or relaxed kind, (instead of suppurative phlegmasia,) with a fever of the like grade, which is typhus— See the chapter on typhus. The grade of typhus fevers will be fixed by the magnitude of the general and personal causes.

The great sweating fever of Europe, in 1597, and some other years, was occasioned by extraordinary seasons. Mezeray, the French historian says, "that for five years the earth was abortive," from the great draught; of course an immense quantity of animal and vegetable food was imperfect. Poverty made filth and wretchedness; and the extraordinary seasons had their full influence immediately on the human person.

Perhaps the worst case that ever occurred, in this country, happened to General Wilkinson's army; badly located on the Mississippi, fed with spoiled meat and damaged flour; the soldiers almost died on their feet. They could separate the flesh from their cheeks, or pull out their tongues before death.

Fevers are sometimes *obscure* and continue a long time without showing their organic affections, or ever their usual accompaniments. Every effort should be made to find out the primary or local affection; for this purpose the patient should be examined in different positions, by pressure on different parts of the abdomen, by long inspirations; a tenderness will often be found by such means, that will give a clue to all the symptoms. Affections of the throat are sometimes an index to disease in the lungs. In many cases, where there is no considerable organic derangement, there will be some morbid matter engendered in the system; to keep up a spurious fever till the matter is thrown out on the surface, or off by the bowels.

In other cases of obscurity it will be found that the disease, by mismanagement or neglect, has forsaken its usual type, and become confused in its symptoms. In all such cases diligent enquiry must be made as to the first symptoms of the disease; which will, in general, be found the leading point to direct the physician: for what the disease was at first, it is apt to be under all its obscurity. Intermittents will sometimes become a mere train of nervous symptoms, with sinkings at the time there ought to be a chill. In vain may the physician prescribe for those nervous affections and mock tokens. Rheumatism will sometimes change its type;

and fix on the heart, changing pain for oppression, and a slow pulse for a more active one. But in such cases the pulse is no guide, and it must be treated as rheumatism. A withholding the lancet in affections of the heart, the brain, or the lungs, merely because the pulse is not active is a fatal error in practice.

The common circumstances (called in this work *personal* causes because they are mostly at the will of the patient, which predispose to fevers, or after predisposition from climate, excite fevers, are as follows: "Debility induced by fatigue, or violent exertions; long fasting; want of natural rest; severe evacuations; preceding disease; errors in diet and drinking; sensuality; too close attention to business; excess of attention to reading; grief; fear; anxiety; sudden change; inadequate clothing or covering; exposure to currents of air; partial exposure; sudden changing from heat to cold, and from cold to heat." This list of causes is taken from Dr. Thompson; though applied by him to fever and cold, will be equally applicable to most diseases; and if putrid exhalations, vegetable decomposition, and filth, are added, we shall have nearly the sum total of personal causes. These with the undue and irregular impressions received from climate, season, situation, and soil, will embrace nearly the whole range of causes that produce fevers.

PROGNOSIS.—It is of no small importance to have a just idea of a patient's situation as to danger, both in fevers and other diseases, and much more agreeable to anticipate his recovery: "Great anxiety, loss of strength, intense heat, stupor, delirium, irregularity in the pulse, twitchings of the fingers and hands, picking at the bed clothes, starting of the tendons, hiccups, coldness of the extremities, involuntary discharges from the bowels and bladder, are fatal symptoms.—Whereas, on the contrary, when the senses remain clear and distinct, the febrile heat abates, the skin becomes soft and moist; the pulse abates and becomes regular, and the urine deposits flakes, a favourable issue may be speedily expected."—Dr. Thompson

It has been observed by Dr. Fordyce, that when a febrile disease does not affect the whole system, but rather acts partially, leaving some organs unaffected or unimpaired, that such is a bad character in disease. It is a vulgar opinion that a good appetite in fevers is a bad and fatal symptom. The author has seen such instances in fatal cases of measles and peripneumonia notha, but at the same time the other symptoms were of that character to give a more sure indication of a fatal issue; so that nothing of great importance can be attached to such a solitary circumstance.

For a continued or a remittent fever to change to an intermittent is favourable; for a remittent or an intermittent to change to a continued fever is unfavourable, especially when induced by cold or fatigue. For an intermittent to have a violent paroxysm whilst taking suitable remedies is a pretty certain evidence that it will not return again.

Physicians have, for centuries past, tried to make a radical distinction between fevers and other diseases; particularly between the phlegmasia, attended with local and febrile disease: such as pleurisy, angina, gastritis. But it is plain that no fundamental distinction can be made between them; for both, i. e. phlegmasia and fever, depend on acute organic or structural changes (called organic paroxysms in the philosophy) which excite arterial and other sympathies over the whole system. How then can any radical distinctive definition be given? But fevers have some unessential marks of distinction, which are the following: the organic paroxysm is obscure, and the sympathies are manifest; whereas, in the aforementioned phlegmasia, viz. pleurisy, quinsy, inflamed stomach; the local affection that gave rise to the sympathies is plain, fixed and determinate. The inflammatory local affections that give rise to fever are perhaps, of a more moderate grade though they may be more extended, and occupy several organs. The *primæ viæ* scarcely ever escapes inflammation of that grade in fever, or perhaps the larger glands connected to it. Notwithstanding their more moderate grade, so

as to escape acute pain, yet those organic paroxysms do not always recede or simply exude, they frequently end in hæmorrhage, suppuration, and mortification; and, however obscure during the fever, if it is mortal, the knife finds them out on dissection.

The author has not put puerperal fever under this head, because it more properly belongs to phlegmasia, and is sexual; and he is doubtful if hectic should have a place with fevers.

CHAPTER II.

INTERMITTENT FEVER, (*commonly*) FEVER AND AGUE.

CAUSES.—The continued relaxing heat of summer, especially when accompanied with moisture; stagnant and *feculent* water,* stagnant air of large flats, where the sun has full action, but the winds are excluded by the woods. Mill-dams and river sides. These causes never fail to prepare the inhabitants for intermittents in due season; so that the slightest error will bring on a chill; even the eating of an apple, in the morning, or any indigestible matter that would produce a temporary dyspepsia. Fatigue and all irregularities will do the same; but the surest, and never failing personal cause is getting wet, or suffering any exposure that would bring on a slight cold. Although far more common in the fall, it is often found in the spring; and when neglected extends into the winter; and then, often falling into a quartan type. The spring intermittents have frequently a cough with them, and are most frequently quotidian. The island of Malta, though a very shallow soil, laying on a substratum of rock, only two feet beneath in many places, is subject to intermittents. Parts of the Roman territory: the islands of Minorca, and Majorca, and Walcheren, are famous for intermittents and remittents. The mountains of Ceylon produce malaria as well as the plains. But from Bishop Heber's account, there is no place on the earth equal to the Tanai: a district of ten miles, at the foot of the Hemalaya mountains. He informs us, from the autho-

* Water will become effete or feculent by transuding plants and is then unfit for life. Hale found it to putrify quickly, and Wildenou discovered that it destroyed certain plants that absorbed it from the adjacent plant. From the tips of marsh grasses where it exudes most freely, the air (which always imbibes more or less moisture) will load itself, and then be unfit for respiration and vital purposes. Is this the true miasmata? viz. stagnant air loaded with effete water that has just escaped from vegetable organs; or is it the gasses of rotten vegetables?

city of the natives, that at the proper season for malaria, every beast and bird forsakes that place. It would, therefore, appear (as those animals are not known to be subject to this disease,) that their respiration must be affected by the state of the air.

SYMPTOMS.—A languor with yawning and stretching, coldness, sick stomach, rigors and tremors, usually attend the commencement. The cold, with shivering, continues a considerable time; from one to three hours, when it begins to give way, first to flushes, and then to a burning fever, with a full pulse; pain of the head and joints, and frequently delirium attend the higher state of fever; eruptions of the rash kind come out in many cases. After the fever has continued for one or more hours it gives way gradually to a sweat, which becomes profuse, and this is succeeded by an intermission, proportioned to the type. See the chapter on fevers. However, it frequently happens that pains, or mere coldness, substitutes the ague, and the fever is not so violent. Quotidians come on in the morning, tertians generally about noon, quartans in the afternoon, and these last are mostly confined to elderly patients, or to those who have had intermittents a long time; for each of them will occasionally change its form.

MANAGEMENT.—In the intervals the patient should be very careful to avoid all dampness and exposure to either sun, wind, or cold; he should be attentive to his clothing, and if late in the season, put on flannel next his skin. His drinks should be wine and water, or sound porter and water; his food should be well chosen, so as not to endanger bringing on indigestion: such as fish without butter, game, beef steaks, in moderate quantity; but those heavy articles must never be taken when the time of a chill is near; milk and mush would be preferable to tea and coffee; all pies, and sweet things, must be avoided; riding, in pleasant weather, in a carriage, will be beneficial; avoiding the middle of the day, as well as the morning and evening. If the weather is the least cool a fire is indispensable in the sitting and sleeping room. Some hours before a return is expected

the patient should be in bed, drinking some warm sage or camomile tea; and if the ague has returned often, or resisted the usual remedies, he should seldom leave his bed the whole period. Many experienced physicians, on the Eastern Shore of Maryland, make this indispensable; and it is a very judicious practice, i. e. to lay up as we do for other diseases, and not to turn out during the intermission.

CURE.—One of the plainest and most common practices, in the middle states, (and which seldom fails) where the constitution is pretty sound, is to give a dose of about fifteen grains of jalap, and six or eight of calomel, as soon as the disease attacks, (waiting till the *fever* is on,) and on the morning of the well day to take half a grain of tartar emetic, every ten or fifteen minutes, in a spoonful of water, till it operates freely; three grains will in general be sufficient. It should be completely dissolved in boiling water. The bile being thus freely evacuated both ways; the patient, if it is a quotidian, will have to abide the second chill as the time is too short for the bark to be efficacious. He should remain in bed, keep his feet warm with a brick, drink warm sage or camomile tea; and when the chill has nearly ended, and the fever commenced, he may take two teaspoonfuls of paregoric, with twenty or thirty drops of antimonial wine; which, with plenty of tea, will give him a full sweat, and perhaps lessen his fever beforehand. As soon as the sweat is off, the bark, in substance, must be used every hour, if either quotidian or tertian; and if the bark is of good quality it will seldom fail to cure the first trial. In quotidiens, that come on in the forenoon, it will be necessary to take three or four doses of bark at night, for there is not time in the day. Eight doses of bark is the least that can be depended on. In quartans it is not necessary to take more than eight doses, in the interval, which should be all taken on the second well day. On the first well day, Virginia snake root tea, or portions of wine-whey, or old London porter, will be preferable, as there will be less danger of overloading the stomach.

Many persons object to tarter: to such fifteen or twenty grains of ipecacuana may be given; but it will be more efficacious if half a grain of tarter, or instead of tarter four grains of blue vitriol be added to the ipecacuana; the whole to be well dissolved, and drawn in a wine glass full of boiling water, and given at one dose. There are, again, persons who would gladly avoid puking; such persons may take ten grains of calomel and ten of jalap on the well day; and at the commencement of the *hot* stage take two grains of opium in the form of a Dover's powder, and after the sweat begin with the bark. In case bark is not to be had, or is not efficacious, Fowler's solution of arsenic should be used; and if properly administered is as safe as other medicines. All the evil consequences and danger arises from giving it too concentrated, or at an improper time. Five drops of this solution, (which contains the sixth part of a quarter of a grain of arsenic) given in one table-spoonful of mint water every hour, for six times, *during a perfect freedom from fever*; and approaching in the last dose to within one or two hours of the time of a chill, will seldom fail, and never do harm. There are cases, however, where neither simple bark nor arsenic will be effectual; and before proceeding farther, various preparations of bark should be tried. The decoction properly made will succeed, where there is a verge towards a continued fever, when the substance will not; and there may be some states of the stomach that the bark in substance is not applicable to, where decoctions will answer. But let no one think that such stuff as is generally made for a decoction will be effectual.* Acids sometimes aid the action of bark, either lemon juice or cream of tarter; and in quartans, spices or snake root may be advantageously added to the bark. Hot water, milk, wine, and spirit and water are used to mix the bark with; a choice may be made of either, according to the state of the patient. In a cold sluggish quartan the spiritous mixtures are best; and in quotidian with any de-

* See the decoction of bark in the apothecarium.

gree of cough, the water or milk are more proper. To those who have no faith in decoctions, the author recommends, in difficult cases, where things are looking badly, and no time to spare, to have the bark levigated; in a case of life and death it should never be neglected.

There are cases of intermittents that resist the common remedies from a peculiar sluggishness of the bowels. In such cases it will be necessary to give medicines to remove that state which will not reduce the strength of the bowels. The preparations of aloes and aromatics are extremely well adapted to this purpose. See the apothecarium. These purgatives should be always taken at bed time, so as not to interfere with the bark. When intermittents have continued some time neglected, or have been badly managed, or by the patient turning out too much; affections and obstructions of the liver and spleen become so considerable that all the above means are inadequate to a cure. In such cases the patient should take one and a half grains of calomel with a quarter of a grain of opium, morning and night, till he has taken eight or ten grains of calomel; or if the blue pill (which is less offensive to the stomach) be preferred let him take, morning and evening, four grains of that, for six or eight days: in either case, stopping before any symptom of sore throat, or affections of the teeth and gums, appear. And when the mercurializing is finished, a blister should be laid on the right side, over the region of the liver, on the well day so as to draw and be dressed before the expected chill; and when the *fever* (subsequent to the ague) takes place, Dr. Lind's plan of taking two grains of opium with three of ipecacuana, in the hot stage, may be used as soon as the sweating is over. The strong decoction of bark with a portion of wine, may then be used.


The above preparations of mercury, especially the blue pill, will be often necessary after intermittents have gone off; when they have left an enlarged spleen: in such cases those pills may be taken more slowly, one of a night, or one grain of calomel and one of sulphur of antimony, may be used for a fortnight. In all cases,

but especially obstinate cases of intermittents, the bark must *not* be suddenly dropped, but used for some weeks in moderate quantity; for if the disease is not thoroughly removed, it is apt to debilitate the patient all the winter, and return with increased danger the next fall.

Spring intermittents can seldom be cured, where there is a cough, without a blister on the breast; and there are many cases (full habits and drinkers) where a little blood might be taken away with great advantage.

In more trifling coughs, the author has been informed by a physician of large practice, on the Patapsco, where their fishing habits expose them to coughs, and to intermittents, that sassafras tea drank freely has been a successful remedy. The bark may, therefore, be taken with this pleasant tea. It must be remembered that in those spring quotidians, or even tertians, that we are near the borders of more inflammatory diseases; and that our remedies should be adapted: none of the heating articles are to be used, but free puking and purging, and some of the antimonial sweating powders used instead of the opiates. In very old, or hypochondriac patients, the chilly fit will often sink them very low, so as to alarm. In such cases a dose of tincture of assafœtida, or a moderate dose of diluted æther, should be given at the first perception of symptoms of return: such as a coldness at the end of the nose, or a gaping. The springs of Berkley or Saratoga, and living four miles from the water courses, may be found necessary to restore some constitutions. All those remedies have been directed for adults, but it is no uncommon thing to meet with intermittents in children who are as obstinate as the disease, and refuse to take a sufficiency of medicine. The quinine* seems well adapted to their cases; essential oils will sometimes answer, especially the oil of wormseed (*chenopodium*) which was successfully prescribed, in old times, in

* One grain of quinine may be rubbed up with a teaspoonful of currant jelly, or a little mucilage, and given every hour during an intermission, for a patient of six or ten years of age.

the seed for intermittents. It is to be used in the intermission; two drops every two or three hours. Opiates are also to be tried, and bark in decoctions may be injected into the bowels. Bark sewed up in flannels and applied to the skin has also been prescribed; but, perhaps, blisters to the wrists;* and opiates after a puke is the most efficacious. Wine-whey will seldom be refused. They should be kept to the house till well, and then rode out in a carriage, or carried out till hearty.  Nuts, cakes, and fruit, will be sure to bring back the disease.

Prevention is better than cure in all cases.—Bark taken morning and evening, with attention to the bowels, has been found fully adequate to save from intermittents, provided the persons do not get wet; and other remedies have also been successful, especially the willow bitters of the apothecarium.

* Speranza recommends quinine to be applied to the blistered parts; for a child, two or three grains may be mixed with some white of egg, and laid on the naked surface at the beginning of the intermission; this may be well in those of one or two years of age.

Dr. Jackson recommends the web of the black spiders, more frequently found in cellars, as an excellent remedy after purging; five or ten grains may be used; and as some poor fellow may have a chill among the fallen trees of the forest, he may get a handy remedy.

REMITTENT OR BILIOUS FEVER.

CAUSE.—There does not appear to be a very wide difference in the general causes of this fever and intermittents. The same climate, the same season, the same places, or particular location, give birth to both. But in most cases of sporadic or solitary bilious fever, the patient has added exciting causes sufficient to bring on any fever: such as great fatigue from riding or walking under a burning sun; a debauch at a fish feast; and all kind of excesses and irregularities; to which may be added sudden changes of the atmosphere. These will never fail to bring on bilious fevers, especially in a hot sultry and damp season, and on subjects that have a good deal of vigour still left by the summer heats; whereas intermittents seem to require very trifling causes: mere changes from warm to cold, or from dry to wet, or a little indigestion, and to attack those who are much debilitated by the continuance of the summer heat.

But in many of the epidemic bilious remittents, the miasmata* from the river shores, has penetrated beyond its accustomed bounds, and having thus reached a population not regularly subject to bilious fevers; a very slight error will bring on or excite the fever in such cases, which are, nevertheless, very mortal in many instances: partly owing to the inflammatory habits of such people, and partly owing to the inexperience of their physicians in the treatment of such fever. And, indeed, there are many instances where no ordinary number of physicians could do justice to a country practice from the extent of the fever. However, they are not always so mortal. It is not only the river shores of flat countries that are subject to bilious fever; frequent-

* That is the vapour, visible or invisible, floating with all its contents, that the moisture is capable of absorbing and carrying with it from living or putrid vegetables, or both.

ly the running rivers when brought low, by long draughts, (and thus exposing their mud and aquatic vegetables to die and rot,) produce this fever. The rotting trees in a new and rich country, with their plashes of water, are supposed to have a similar effect. And in all the well watered countries, high or low, more especially to the south, alternate heats and rains without succeeding brisk winds, to drive off, or absorb the vapours, will induce bilious fever through the summer and fall of the year. All hot countries, either islands or continents, are subject to different grades of this fever. But Batavia is probably the worst upon earth; there if a man survive the fever he becomes dropsical from an enormous enlargement of the liver and spleen; and draws out a life of misery worthy of commiseration.

SYMPTOMS.—The patient is sometimes taken with a perfect chill, or deep long continued coldness; but at others, the fever commences with great lassitude, yawning, stretching, and unwillingness to move,—at night, a fever with pains in the head, back, joints, or abdomen, prevent his rest. The head is often so affected as to cause delirium. This state is soon attended with a vomiting of bile, which continues to come up whenever the patient takes a drink to assuage his excessive thirst. After two or three days and nights in this way the fever may be perceived to abate in the morning; sometimes with perceptible moisture, but after a few hours, and at farthest towards evening, it increases. In some bad cases the head has been so seriously attacked in the very offset, as to cause with the vomiting a fainting fit, or has been taken for apoplexy. In such cases the tongue is yellow or brown, the pulse contracted, the eyes and skin coloured with bile, and the bowels costive: a stupor attends the accession. In common cases the tongue remains for a while white and the pulse is quick, though not often full; after a week or more, if not mortal, the disease ends, (though in very bad cases much sooner) with a copious sweat; a change to an intermittent form, or an hæmorrhage from the

nose or lungs, leaving great debility, and the head much affected with lightness.

MANAGEMENT.—The patient will demand some drinks, and although they are sure to be thrown off, yet it will be necessary to indulge him with a drink, now and then, of toast and water, tamarind water, and lemonade. But when an essential medicine is to be taken, as for instance, a purgative, he must content himself with merely washing his mouth, or sucking an orange. His bed room should be as large and airy as can be obtained; kept dark and still with few persons in it, and all noise in and about the house strictly prohibited. There is no fever that requires more attention: the chamber furniture should be instantly removed, scalded, and a fresh vessel substituted; the floors may be sprinkled with vinegar and water, or with chloride of lime, or of potash; which latter articles are preferable. He should lay on a mattrass; and in this instance the poor may have all the luxury of the rich: for a typha (catstail of the marshes) bed is the best in the world; the heat of the body can scarcely warm it, and it is pleasant at all times. Barley water and rice water will be requisite as food and drink, as soon as the stomach can retain it; and as the strength and fever give way, custards, chicken water, milk and mush, weak wine-whey, birds, and little fish, seasoned with salt alone, may be used.

CURE.—In solitary cases of bilious fever where the patient possesses a good constitution and lives north of the Potomac, and especially if he has been used to free living, and has much pain in the different parts mentioned above; there can be no doubt of the propriety of bleeding, which in many cases requires a repetition. A puke of fifteen or twenty grains of ipecacuana may *then* be given to clear out the stomach, and this will sometimes so quiet the spontaneous vomiting, that purges and sweats may be instantly used; but when it does not, it will be necessary first to leach and then to lay on a blister over the region of the stomach, which often has the happy effect of stopping the vomiting, and causing an early remission of the fever. If the stomach still continues irrit-

able, an opening downwards will be more likely to relieve it than any other means. In this case no attempt should be made to give any bulky article, nor to give a full dose at once; two grains of calomel with one of aloes made into a small pill, with a drop of spirit or syrup, should be given every half hour till six or eight pills are taken, in all of which time the patient must be persuaded not to swallow one mouthful of any drink, but merely to wash his mouth, or suck an orange. This purge may be given before the blister is dressed, and if it delay operating, a glyster of salts may be used. A single purge will scarcely ever be sufficient in one of those fevers, they must be repeated: the gentler purges may then be used, and if the stomach can receive it, castor oil is one of the best. Every other day, unless the bowels are very free, some opening medicine ought to be used: twenty grains of rhubarb, or ten of jalap, with a teaspoonful of magnesia in mint water sweetened, is one that will set well on most people; or a little decoction of senna with half an ounce of Rochelle salts, (soda tartarizata.) This last medicine, however, should be divided into two or four doses, and given at intervals to suit the stomach, and merely flavoured with mint or cinnamon. After the exhibition of the first purge some attempt should be made to promote a perspiration, and as the stomach is so irritable no attempt should be made with any nauseating medicine: a dose of effervescent mixture* may be given *alone*, at first, to which may be added after taking a dose or two, fifteen drops of antimonial wine, which may be continued every half hour for six or eight times. But in general more powerful medicines are necessary; in this case the fever powders No. 3 may be used every hour, for five or six times. Should the stomach reject one or even two of those powders, it will be best to persist, as it often happens that it will finally retain them. Should these medicines fail in bringing on a free perspiration, no delay should be made, after five or six days, in laying on blisters on

* See the preparation in the apothecarium.

the ancles, and when drawn dressing them with mercurial ointment, that the gums may become affected, still using the sudorifics; and when the fever has been brought to intermit, or when the perspiration has been extensive, no delay should be made in using the bark. In low cases, or in bad epidemics, and probably in most of those fevers far to the south, we must not wait for a very perfect remission; but begin with the strong decoction of bark* and elixir of vitriol the moment the pulse alters for the better; this is not, however, to be done before the fever has run on some days, and after the blisters have been applied to the ancles. In such cases there is great need of profound judgment, and few persons can be expected to act aright without the aid of an experienced physician, who has first to settle in his mind the probable length of the fever, from preceding cases, the symptoms, patient's constitution, and experience. If the case be of that mortal stamp that threatens to end unfavourably in five, six, or seven days, he must try the bark by the third day, or even sooner, but if the patient and fever is likely to hold out into the second week, it would be imprudent to use the bark before six or eight days, unless the remissions were considerable; and this event should be considered in blistering the extremities. The first blister over the stomach is intended to quiet the stomach and relieve the pains, and reduce any local inflammation; the subsequent blisters are intended to cause a remission. Some physicians are prejudiced against decoctions of bark, and some against the bark in substance; the late eminent physician, Dr. Wiesenthall, of Baltimore, preferred the decoction, when properly made. It is certain that it will remain when the substance will not, and will be effectual in many cases where the substance does no good; more especially when there are any remains of inflammation. The late Dr. Goodwin, of Baltimore, who ranked the first in his day, was very much pleased

* See the preparation of bark in the apothecarium.

† Dr. Monroe used extract of bark and a small portion of blue vitriol; about one grain of the vitriol to the dose.

with the resinous extract of bark given in pills; and they should not be forgotten in cases like this we are now treating. But those who prefer the substance, may improve it much by levigating it in a mortar. When once the bark will lay on the stomach it must be continued every half hour, or hour, till the accession, and then some of the sudorifics with a little snake root tea, given till another remission; and as the bark may alter the usual times of remission, the pulse must be watched, *day and night*, so as not to let slip *one single hour*. The patient's strength must be supported with gruels and barley water at first; then with chicken broth and wine-whey, or will milk toddy if very low, and wine be objectionable? Dr. Fowler has recommended his solution of arsenic in those fevers, and it may be used under the rules laid down in intermittents, but never till the bark has been tried in vain. So may quinine, but never till the bark itself has been rejected. Powder of Virginia snake root, and angustura bark, may also be used under the same restrictions, or when bark happens not to be at hand. It would appear that those physicians who recommend dog-wood bark, and black-oak bark, and quinine, as preferable to fine Peruvian bark, are either ignorant of the virtues of good bark, or happily ignorant of bad bilious fevers in their practice. Such recommendations come from the north, but bilious disease from the south!!! And as far as the east is from the west, so far should all such comparative trash be pushed from the mouth of a patient that is ill with a dangerous remittent. Riding is thought to be conducive to restoration after the patient is able to bear it. Those fevers if not well cured, are apt to leave a bilious habit and reduced state of health to the spring; and if the patient gets another attack the ensuing season in that state, it is almost certain to carry him off. No means should be neglected to restore the system the same fall, by small doses of mercury, (viz. the blue pill) and a constant use of the bitters of willows and aloes, as recommended in the apothecarium; and, also, by flannels next the skin in the

cold months; and the use of wine or sound porter after the mercury has been used. A visit to higher ground, and especially to the *northern* springs will be of great advantage to one who has been a southern patient.

INFLAMMATORY FEVER.

This fever most frequently attacks those who are in the vigour of life: such as are of a rustic, sanguine, athletic constitution, who indulge at least in full and free living. It is found, however, in constitutions much less inflammatory, when the exciting causes have been great; and is more common at any other time than in the warm summer and fall months.

CAUSES.—Heat and cold applied in quick succession; exposure to a moist atmosphere, and especially a cool one when the system is relaxed by fatigue; or when already impressed with slighter diseases; more particularly with catarrh. An intermittent is also changed at times by similar causes into an inflammatory fever. Debauch and sitting up at night in warm rooms, and then passing through a current of cold air, or riding against wind are likely sources of this and all other inflammatory, local or general diseases.

SYMPTOMS.—It discovers itself by a lassitude and dull sensation over the body; debility, alternating chills and flushes, tremors, pains through the whole body, but more particularly through the shoulders, breast, back, head, and knees. These are succeeded by an intense and burning heat, an inextinguishable thirst, inflamed eyes, fullness and redness of the face, sickness, inquietude, and anxiety. Frequently a cough and some difficulty in breathing attend. The pulse becomes full, strong, and quick; the skin dry, the tongue white all over, or ruddy on the edges, but as the disease advances, it becomes brown and dry with a crust; the urine is sometimes clear, at other times red at the offset. Vigilance, delirium, and towards the end stupor are common symptoms. The bowels are generally costive. If the disease is not checked it will be found that after a week or two, according to the constitution of the patient, that the following bad symp-

toms will begin and end nearly as follows: drowsiness, tremors, subsultus, jerking of the elbows and hands, hiccough, involuntary discharges of urine and fœces, which are speedily succeeded by death.

MANAGEMENT.—The patient should be confined to his mattress, in a dark still room; the temperature should be very moderate, but not so cool as to excite cough, or to be unpleasant to persons in health; his diet should be altogether fluid and vegetable; and the stomach not overburthened with these. Barley water, jelly water, molasses and water, lemonade, and cream of tartar and water, will give a choice of drinks in the early stages; but as the strength gives way, barley water, gruels, boiled custard, and chicken broths, will be more suitable. It is sometimes necessary in great weakness of stomach and low state of the system to give milk toddy freely; this is an admirable article in some cases. It is a great convenience to have such articles as will satisfy the thirst and support the system.

CURE.—As this fever is generally obstinate, and often of considerable duration, often lasting three weeks; and is supported by some inflammations in the large viscera or muscular tissue, or both, we must not be disheartened on finding that we cannot overthrow it in a few days. The intensity of the exciting cause and its long application will often give a clue to what may be expected. We must therefore sit down like a general before a besieged city, and be content with seeing the walls daily falling before our artillery. Free bleeding is the most important remedy. It must be performed immediately, and repeated for some days till the pulse feels the effect, and the lungs and head at least are free from their oppression. Purging must also be commenced from the onset, with divided doses of salts mixed with portions of tartar emetic*. After the first or second purge at farthest, some sudorific medicines will be requisite; the fever powders of nitre and tartar will be

* Epsom salts, in fine powder, one-fifth of an ounce, tartar emetic one-quarter of a grain; one of these every two hours in syrup.

some of the best to begin with, if the stomach will bear them; if not, some other of the fever powders composed of neutral salts and antimony (see the apothecarium) must be tried; any of them are to be used on such days as the bowels are free, (and continued alternately with the purges;) it not being proper to use them the day a purge is given, nor prudent to stop the operations on the bowels when they have been sluggish for any other medicine. It will often happen that saline medicines after a few days use will affect the stomach with flatulency, in which case the salines must be exchanged for some other purges and fever powders; it being very important both to get and to keep the stomach in a state to receive medicine. Besides castor oil, jalap and calomel, may be used; but we should be very careful how we use calomel at the commencement of any inflammatory disorder, for it will assuredly (if it gets into the system) prolong the disorder, and often so confuse it, that it will be hard to determine what is mercurial disease, and what the febrile affection. It is a good way when the stomach has an early tendency to become affected with salines to add a little magnesia, and lessen the salts; senna and manna, or magnesia and jalap, are also good purges. The same attention will be requisite in choosing the fever powders; nitre will often be inadmissible, even at the offset, and after symptoms of flatulency, should *never* be used. The other powders (see the apothecarium) will be more proper, and especially those with chalk and antimony. By using some of these every two hours through the day, and opening the bowels the following day, (provided there is not a very free action on them) and the use of diluent drinks, the inflammatory symptoms will probably give way in a week, or ten days, so that our purges and sweats may be laid aside for mercury and antimony, in small doses: three grains of calomel and twenty of pulvis antimonialis may be formed into six powders, one of which may be given in syrup every two hours; so that they will act on the bowels gently, and also check the febrile action without any danger of

having an effect on the system before using them four or five days, at which time the stimulus of mercury will be beneficial. Blisters may be put on the ancles after the tenth day. The mercury, however, should not be extended so as to make the mouth sore. It is sufficient whenever the patient, or the physician, can perceive it by the white thick fur on the tongue, or fœtor of the breath. As the patient grows weak the Virginia snake root with elixir of vitriol, or with a few drops of diluted nitric acid, will be proper medicines, till he is enabled from the full absence of all inflammatory symptoms to take water bitters and decoctions of bark, acidulated with elixir of vitriol. It will sometimes happen that the head or breast is so much affected that it will be necessary to apply blistering at an early period, but not till after two or three bleedings, and completely unloading the bowels. It is no uncommon thing for some of those inflammations that have supported the fever to give way by an hæmorrhage from the bowels, lungs, or nose, and at other times they will concentrate on some part, usually about the ribs, and form a suppuration; which must be opened as soon as the matter is formed, lest it break inwardly. The moderate use of wine-whey, milk toddy, and broths, will be necessary the moment the fever puts off its inflammatory character, or changes it for debility, producing the symptoms aforementioned. When the patient is much oppressed with heat it will refresh him to have his face often cooled with a wet towel; and should the extremities, at any time, become too cool, they should be sponged with water moderately warmed, wiped dry, and then wrapped in flannel by drawers, or stockings, or both.

Enemas may be used when purges are more doubtful, or when we wish to go on with fever powders; as, also, when the disease is advanced, they will then be more judicious than purgatives: and a very little will keep the bowels regular when antimony and calomel are used.

TYPHUS FEVER.

The author has introduced this chapter in the place of nervous fever of the old book. We have no such fever as was there described. It was taken from an European history of that disease. What is now introduced he has taken from the bedside. Natural causes exist in his own neighbourhood to produce typhus, and artificial causes are never wanting. Three parallel lines, of only two miles apart, give three distinct regions, and as many fevers. Near the water (falls so called) bilious fever prevails in summer; further back on the elevated flats, three hundred feet above tide water, typhus prevails: and on the drained hills, with porous soil, more pure inflammatory affections are prevalent. It would, therefore, appear that peculiar morbid impressions are made by soil, situation, and position; and that where inflammatory diseases and malaria are interrupted by some peculiarity; that nevertheless, a morbid impression may be made of a distinct character: and hence, we find in the cities, on the tide water, that when they are so dry as to exclude malaria, and the atmosphere so temperate and steady as to exclude pure phlegmasia; they, nevertheless, make a morbid impression somewhat of a mixed nature; which, with the personal causes, produce typhus.

CAUSES.—These are either natural or artificial.—The natural causes are what has been before stated, viz. certain unsuitable degrees (for health) of temperature and moisture in the air, or soil, or both, making undue impressions on the whole system; but particularly on certain organs where the foundation of the fever is located.

The artificial causes which aid in this business are, damp close houses, with small rooms; wet cellars, scoops and ditches about the buildings, with stagnant water in them; filth of all kinds about the yard, in the

house, furniture, dress, or person; crowded bed-rooms, exhalations of putrid substances, and of the bodies of persons sick or well; bad diet: such as unripe fruit, unsound meats, and bad waters; improper food: such as used in sieges, or difficult travels. To these may be added all debilitating causes, either previous disease or debauch. These two sets of causes, especially in varying weather, are sure to produce typhus, and according to the degree of them, so will be the magnitude of the disease.

SYMPTOMS.—These are so various, that to give a full detail of all the appearances, in the different species, would far exceed our limits. The author, therefore, will confine his account to the most usual, and especially to those in this part of the country. The attack begins with lassitude, head-ache, sleepless nights, and a small cough, without pain in the act of coughing, though pain is common in other parts: as the head, back, face, loins, &c. Purging is a very common symptom in the early part of the disease. The throat is sometimes sore. After a while great muscular debility is felt; the nerves and brain discover a morbid state, by starting in sleep, subsultus, despondency, sighing, and as the disease advances, a comatose state. The stomach is inactive from the beginning, but the patient can take light nourishment, so that there is no symptom in the stomach of any note. The thirst and heat are moderate; the pulse is at first pretty active and nearly of a natural strength; but after a while gets weaker, and remissions ensue where the patient is properly treated. Both cough and diarrhea are sometimes absent, but a pain in some part shows the local disease. It is no uncommon thing for the affection of the lungs not to appear till after a while. Every night from the beginning the fever makes fresh excursions, rousing up the local symptoms, and producing delirium in many cases. When the inflammatory affections give way, which happens in about ten to fifteen days, some hysterical symptoms are apt to alarm the patient, but they are

always favourable; for it is an infallible token to begin the stimulating prescriptions.

When medicinal means have been neglected too much, the comatose symptoms ensue much sooner, and delirium at night is common; the pulse keeps on, though getting more feeble, and the tongue becomes brown and glazed in blotches, and the teeth are sometimes covered with sordes. A great variety of appearances take place in the tongue, under different circumstances; sometimes it is much furred instead of glazed; when of an ash colour it is the most favourable appearance. When the disease is protracted the pulse gets so feeble that the patient cannot be safely raised in his bed; frightful ulcers form on the hips and over the sacrum in tedious cases. All the aforementioned symptoms occur in the first grade or typhus mitior; what European authors call nervous fever.

TYPHUS GRAVIOR, (COMMONLY PUTRID FEVER.)

In this grade every symptom is aggravated; the debility takes place very early, and is very great. The tongue and gums are covered with sordes; the breast is greatly oppressed, the breath is sometimes hot and fœtid, the stomach is disordered, and the bowels also affected with flatulence, and fœtid bloody discharges; the eyes are red and suffused with yellow or red; violent pains are felt about the small of the back; the surface in some cases becomes cold; the pulse is generally small and quick; attended with throbbing at the temples. The spirits soon give way; petechiæ appear, and death presses on in all its sinking forms. From two to seven days may be the common time before a change for life or death ensues.

There are, however, much variation of symptoms, especially at the offset. In some there will be a short inflammatory stage of twelve to twenty-four hours; in other cases the low and sinking state commences instantly; in some there will be one or two turns not to be distinguished from common intermittent or remittent; and in some more rare cases, there will be pain

without much change till petechiæ or mortification ensue at the pained part.

CONGESTIVE FEVER.

Dr. Armstrong has given this name to a species of typhus fever under the idea that it has a generic difference to distinguish it from typhus mitior. It is, however, but a species of typhus mitior; and the author has seen a few cases of typhus mitior having but one stage that was wont to hold out till death, like the common inflammatory fever.

The *Symptoms* are oppression in the brain and lungs. The oppression on the brain is of a peculiar kind: for the patients will often answer you any questions rationally, and yet cannot exert their mental faculties. The pulse is active, and continues so till death is at hand. In ten to fifteen days the patient generally dies. In the case seen by the author, it was most unquestionably inflammatory. It was the spring 1814, at about which time it prevailed in the western country, and some accounts are to be found in the New York Repository. Dr. Armstrong has adduced other cases in which the local symptoms, or inflammation, was in the spinal marrow: an engorgement of the vessels of the brain and lungs, rather than an active inflammation, is said to exist.

In all the species of typhus some damage is apt to ensue: the loss of the hair is a common consequence, after a long continued typhus; and many other damages have been known to follow: such as loss of hearing, loss of an eye, enlargement of the veins about the face; frightful ulcers will also form in the end of a long disease.


MANAGEMENT.—Much may be done by good management. If possible the patient should be removed from the place where he took the fever, even if it be only one hundred yards; his rooms even then should be ventilated and purified by white-washing, chloride of lime, or other means. See the Apothecarium. All manner of cleanliness is here particularly necessary;

and the patient should not have more company than what is necessary to attend him. All the acid watery drinks are useful in the first stage, and after that stronger: such as sound porter diluted, or if this produce flatulency sound wine and water, wine-whey, or when those do not set well, or are insufficient, some toddy may be used. Gruel, mush and milk, and chicken broth, are suitable diet. Rice is the best article when the bowels are affected or very weak.

CURE OF TYPHUS MITIOR, *in its various species.*—


1. TYPHUS IDIOPATHICA, (i. e. where no local affection appears.) Many physicians believe that there is no fever, without some occult local affection; and they are probably right; however, as these cases are more slight, dissection can rarely take place to end the dispute. It may be well always to suspect some organic derangement, and to lay on (after a bleeding) a blister on the breast, and then proceed to open the bowels with salts, castor oil, or senna and manna: these purges may be continued with the following rules: to use different ones each time, and never to purge two days successively, but to use them after a sudorific. A puke of ipecacuana will often be of great service; and this may be repeated under the same restrictions as the purges. When the primæ viæ is thus far evacuated, sudorifics are to be used through the day, or night, or both if needful. The powders, No. 2 and 3, composed of neutral salts and antimonial powder are very suitable. By the daily use of *one* of the above prescriptions, viz. purge, puke, or sweat; the febrile actions will be considerably reduced; and if they delay and the patient's strength will not admit farther evacuations from the intestinal canal, blisters are to be applied to the ancles and wrists. By this time, *and not before*, we may introduce small doses of calomel in the form of Plummer's pills, till nine to twelve grains of calomel are used, in six days, but not to purge. The early use of calomel always does mischief; and, therefore, it should not be given even as a purge. By shifting the kind of purge we may suit the state of the fever

and gain some other advantages. The salts should be used only in the more early part of the fever, and we should ascertain what purges suit best. As soon as there are remissions obtained, some elixir of vitriol and snake root tea may be administered, and then the decoction of bark. If there is any histeria, or nervous sinking, about the end of the second week, or sooner, the bark may be instantly given; as these symptoms show the entire recession of the inflammatory stage. But when bark will not answer, the slow use of calomel will fully prepare for it, and often supersede the use of it. The use of an enormous dose of calomel, at any time, to blow up the disease, as some express it, is the height of folly, and will never fail to do mischief. The steady perseverance in gentle means will generally answer, and bleeding should always be the first thing: it may often be performed in moderate quantity one week after the disease has set in, if the pulse keeps up, or the head be much affected. If the bowels are very free we may use the pukes, and small doses of ipecacuana with the sweats, and not more than one or two doses of castor oil as a purgative. Great care must be taken to use barley water and thin gruel, pretty early in the disease, to sustain the strength; and when the tonics are used, mush, milk, and broths, should be prudently used.

2. **TYPHUS WITH DIARRHEA.**—This is the most simple of all the species, *with evident local symptoms*. It is common in crowded places, especially with the same disease, even though of a different species. A puke or two of ipecacuana, small doses of the same with prepared chalk, and then a little snake root tea with ipecacuana continued is nearly all the medicine needful. But the patients must be scattered, and their clothes, beds and diet changed; rice is here an excellent diet.  Blisters may be laid on the abdomen, and if much debility ensue a decoction of bark, or angustura will restore the strength.

3. **TYPHUS WITH PULMONIC AFFECTION.**—This species will sometimes be so obscure as not to discover the

affection for many days.* Repeated bleeding and blistering are here absolutely necessary. The saline purges and antimonial powders are also to be used as in typhus idiopathica, and then if the disease continues, blistering the extremities and giving the Plummer's pills must be the practice. When the pulse gives way, and hysterical nervous symptoms ensue, the bark may be given with great advantage, as in (1.) Barley water and lemonade may be used for drink; and the rest of the management and cure as in species 1.

4. TYPHUS WITH PULMONIC AFFECTIONS AND DIARRHEA.--This is the most common species in Baltimore county. The diarrhea is disposed to go off as the inflammation subsides. Bleeding, and blistering the breast are indispensable to a speedy cure, and to avoid those comatose symptoms that follow a badly treated or neglected case. After bleeding, the antimonial powders, No. 3, are to be given, and a dose of castor oil will be often very useful. Emetics should be used and repeated. The exact prescriptions and rules are to be used for blistering the extremities, mercurializing, and finally giving tonics as directed for the other species; which see.  It is often necessary to repeat the bleeding, and also the blistering on the chest.

5. TYPHUS WITH EARLY NERVOUS TWITCHINGS OF THE ELBOWS.--These nervous affections at the onset are carefully to be distinguished from the nervous affections which reach the spirits, and happen as the disease recedes. Cases occur where such jerkings will affect the patients a day or two before they can be persuaded to lay up. Bleeding, with the purges and antimonials, have always succeeded with the author. The pulse was his guide. The diet and subsequent treatment must be as in 1. It is, however, a slight species.

6. TYPHUS WITH CYSTU SYMPTOMS; (i. e. of the kidney, or bladder.)--It is hard to say, at times, which of

* The author attended two cases in which there was no cough, or pain in the breast, for fifteen days or more; a violent one then ensued with suppuration: one died (seventy-five years old;) the other, a young man, got well in two weeks.

these organs, viz. kidneys or bladder may be the seat. The treatment is the same, bleeding, purging, emetics, antimonials, with cooling and mucilaginous drinks, and the rest of the treatment (i. e. when inflammation is gone) the same as in 1.

7. TYPHUS WITH ANGINA.--It is somewhat remarkable that nearly all the author's patients with this were Africans. The treatment is bleeding, blistering the throat; alum, gargles, antimonials, purges, and then the after treatment as in other species.

8. TYPHUS CONGESTIVUS, with affections of the lungs and brain; very small and often repeated bleedings, with blistering the head and breast, has been recommended by the physicians who have seen this disease, (particularly in the spring) and to these remedies the antimonials and purgatives may be added. Dr. Armstrong has several other varieties of it; and he may be consulted. But surely those fevers of New England, called typhus sincopalis; and those in the south of this state that begin as an intermittent, and sink after a turn or two, have no claim to the above name. They belong to the next great division of typhus.

2nd. Division, TYPHUS GRAVIOR.

CURE.--It was observed that one class of typhus gravior has a short inflammatory stage of twelve to twenty-four hours. When this can be anticipated and the lungs are oppressed, there can be no doubt but a moderate bleeding will be a good beginning.* It is a practice recommended by many eminent physicians. The famous Dover appears to have been one of the most bold in this prescription. A blister is then to be applied, and an emetic of ipecacuana given; the bowels should be *regulated*; but *purging* is here a dangerous practice; small doses of calomel and antimonial powders may be given, at every six hours, till they merely pass the bowels. The low stage is to be rather anticipated; to wait for it will not do: we must

* This may be by leeching the breast, or venesection, as the pulse may allow.

feel for it, by trying the antiseptic and stimulating articles: elixir of vitriol and snake root may be given alternately, till we find that the strong decoction of bark will be received without disturbing the lungs and bowels, and then wine-whey, or milk toddy, if the pulse be low. Sinapisms are very useful in the low state of typhus; and also artificial warmth, with bladders and bottles of warm water, &c. The medicine called Clutton's Febrifuge (see the apothecarium) has been used with success in some low fevers. It appears to be best suited at an early period, or about the time that the first or inflammatory stage is about giving way. The purification of the rooms, and the use of diet, is here all important; wine-whey and milk toddy are both medicine and food; then broths, and mush and milk, must be used in good time. Opiates are recommended by some physicians when the stomach is very irritable, perhaps in such case it should be joined with a little calomel to prevent constipation. Enemas are often useful. There is a difficulty often, about the bowels: for they are apt to become very torpid, especially when the patient is on the recovery; requiring much force to open them, and purging is dangerous. If enemas will not do, a few grains of aloes and assafoetida may be given every four or six hours, stopping the moment there is an operation. This happens sometimes in typhus mitior, and must be treated the same way.

1. **TYPHUS SYNCOPALIS.**—Having no experience of this form of typhus gravior, we must refer to Dr. Minor. He describes it as having a sudden nervous sinking, and general weakness, imitating apoplexy, fainting, hysteria, cholera, &c. without reaction in the pulse; (of course it has lost, or wants, the first stage;) and the extremities become cold. In some cases there is petechiæ. One of the most marked general symptoms is a sense of emptiness about the stomach, not unlike great abstinence. What is very singular, these sinkings are periodical: returning in the morning and middle of the day. The doctor used large doses of opium imme-

diately, and also sweetened wine freely as his main stay, to bring on reaction, and then treat them according to their state of reaction, or local affection. There can be no doubt of the advantage of blisters, sinapisms, and artificial heat in such cases; and a great caution in moving the bowels. The bark and nourishing diet must finish the cure.

2. *TYPHUS PENINSULA MARYLANDICA*.—In various parts of the Eastern Shore of Maryland, typhus fevers have occurred, with a simple sinking and coldness, without any marks of a first stage. The physicians have found the free and large use of brandy, instantly given, their best remedy; and having revived the patient, they use bark and snake-root; and as a farther cure, blistering; especially if local symptoms ensue.

3. *TYPHUS PETECHIALIS*, (Jersey Typhus).—Although petechiæ are frequent at the end of various species of typhus, yet it is rare at the beginning. There were some cases about twenty years past, in Jersey, where the patients were seized with great pains in the legs, and petechiæ came out, and then mortification ensued; the stimulating plan seems to be equally suited to this species, though it was in general mortal. Standing long in cold flats, in election groups, was supposed to be the cause; perhaps in all petechiæ, sponging the surface with a hot spirituous decoction of bark, and then sprinkling on powdered camomile, would be a judicious practice. The darker the petechiæ, the worse.

4. *TYPHUS MALARIA*.—This form is probably the most extensive, being sometimes epidemic in our state, on the upper part of the large rivers Potomac and Susquehanna. After one or two turns of intermittent, or more commonly remittent, the patient sinks very low. In the intermittent form, the physicians at Annapolis, who had some sporadic cases, experienced the use of opium and calomel, in large doses, as the best incipient means. In cases under the author's care he found an evacuant useful, but a repetition was severe; and, indeed, they seemed to operate with a roughness, that indicated some inflammation in the

stomach, and this was found to be the case (on dissection) at Annapolis. Blisters after gentle evacuants, and then all the range of stimulants, with bark, are necessary; though calomel will come too late, in general, as a stimulant, to enter the system, it may, however, be well to apply mercurial ointment to blistered surfaces. All the jail, army, ship, and hospital fevers belong to some of those two divisions of typhus gravior, i. e. with one short inflammatory stage, or with a single low stage. The above treatment is equally applicable to them.

The following table will serve to adjust the different histories of typhus, and to fix those of our own climate.

| | | |
|-------------------|--|--|
| Simple Species. | { <i>Typhus Mitior</i> , nervous fever of European authors, with two stages: the first inflammatory and continued, the second nervous and often remittent. | |
| | 1. Typhus Ideopathica, i. e. with no visible local affections. | |
| | 2. Typhus with Diarrha. | |
| | 3. Typhus with Pulmonic Symptoms, i. e. of the Lungs. | |
| | 4. Typhus with Rheumatic Symptoms. | |
| | 5. Typhus with Cystic Symptoms, i. e. of the Bladder or Kidneys. | |
| | 6. Typhus with Cynache, i. e. with Sore Throat. | |
| Compound Species. | 7. Typhus with Primary Nervous Symptoms, (Jerking.) | |
| | { 1. Typhus with Pulmonic Symptoms and Diarrha. | |
| | 2. Typhus with Cynache and Rheumatic Symptoms. | |
| | 3. Typhus with Pulmonic and Cystic Symptoms. | |
| | 4. Typhus with Pulmonic and Cerebral Symptoms, (Typhus Congestivus.) | |
| With Two Stages. | { N. B. Dr. Armstrong has additional species of this name. | |
| | { <i>Typhus Gravior</i> , Putrid Fever of Old Authors. | |
| | 1. Typhus with Symptoms of the Simple Species of Typhus Mitior. | |
| | 2. Typhus with Symptoms of the Compound Species of Typhus Mitior. | |
| | 3. Typhus Malaria, with Intermittent or Remittent, first stage. | |
| | 4. Typhus with Subsequent Petechiæ: Army Fever, &c. | |
| With One Stage. | 5. Typhus with Hæmorrhage from the small vessels, Yellow Fever. | |
| | { 1. Typhus with Nervous Sinking at the offset, Typhus Syn-copalis. New London Typhus. | |
| | 2. Typhus with Immediate Sinking, without nervous affections, Maryland Typhus. | |
| | 3. Typhus with Petechiæ and Mortification of the extremities, Jersey Typhus. | |
| | 4. Typhus with Cholera: India Cholera? | |
| | { 5. Typhus with Sweating Stage, Sweating Fever of 1468 to 1557, of Authors. | |

HECTIC FEVER.

CAUSES.—Violent racks of the constitution from any cause, absorption of matter from ulcers, excessive relaxation, and delicacy of any part that is exposed to irritation, as the lungs, stomach, and bowels; most all these causes are attended with general debility, and particular relaxation of the parts that defend the tender extreme vessels from the irritations which act about them.

SYMPTOMS.—The fever usually comes on in the forenoon, sometimes with considerable chills, or coldness; this is succeeded by heat, a quick, small, and weak pulse in general, though sometimes there is some hardness in it, especially in those who are not much reduced, and early in the complaint; this sometimes lessens towards evening, and again increases at night; at other times it continues on without any very obvious change till towards morning, when it intermits, or greatly remits, with a profuse sweat, which lasts a considerable time: the sweats do not appear in the early period of the fever in profusion. A head-ache usually attends the fever, as also a sick stomach, both of which go off in the intermission, or remission.

The tongue is usually clean in this fever, the belly at first is often bound, but in the end a lax almost always attends. The patient wastes away gradually; his feet swell, particularly at night, his hair falls off, his nails become crooked and thick, his face sharp, and a general failing takes place in every thing but his expectations of getting better, and his understanding, which usually remains to the last. This is the most usual form; but there is some difference, owing to the variety of the parts affected, and the state of the patient.

MANAGEMENT.—The patient should have the lightest and most nourishing food given him in small quantities

at a time, and at such times as the fever is absent or slight; thus his breakfast, or dinner, at ten o'clock, should contain most of what he should eat. Milk is very proper when the stomach will receive it: sometimes it may be most agreeable when diluted with water and sweetened, at other times it may set better when boiled. Custards, light puddings, chicken water and broth, beef tea, rye mush, corn mush, with the common vegetables of the farinaceous kind, are mostly proper. Weak wine and water in the absence of fever; barley water and sage tea at other times, will be proper for drink. The patient should be kept clean, and when his strength admits, he should be aired in a carriage, and at all times have access to pure air. See the apothecarium for articles of diet, and purification of rooms.

CURE.—In many cases it will be needless to attempt any thing but a removal of the cause, when the fever will quickly cease; but in general both the one and the other are to be combatted. For treating the causes, see the places where they are treated of; though some of them have no place in this book. For the general treatment, the debility should be removed and the fever interrupted: for this purpose, (when nothing forbids,) bitters and bark are necessary; also, elixir of vitriol, which may be given to sixty drops a day, at four doses. These are to be taken whilst the fever is off, or when it has greatly remitted, just before the return is expected. After it has commenced, one of the following powders may be given; ipecacuana, two grains, magnesia, one teaspoonful, mix them and give it in a little camomile tea.

When a lax comes on there is little hope; but the following may be given: columbo root, two drachms, pour one gill of boiling water upon it, and in a quarter of an hour strain it off; to this add twenty drops of laudanum; this quantity may be used in the course of eight hours and repeated, or in place of the columbo, ten grains of the powder of kino, with the opium, may be used as often. See the apothecarium.

ERUPTIVE DISEASES.

CHAPTER III.—SMALL POX.

ABOUT eight days after an exposure to infection, the patient is taken with all the common symptoms of fever: chills, nausea, head ache, and pains in the small of the back. The throat is sometimes sore, and the eyes red. After three days, and sometimes more, an eruption like flea-bites appears on the forehead, and extends over the face, breast, and then to the extremities. About the time the eruption has extended over the face, the fever ceases. The pustules grow and fill with good matter, are distinct, with red margins, and in one week are ripe and burst; or the matter is absorbed, and in another week quite gone. About the fifth day of the effusion a gentle salivation comes on, and increases, with the commencement of a swelling in the face, which always does or ought to take place, just before the pocks are fully ripe. A swelling of the wrists, and then of the ancles, succeed this swelling in the face. Children are liable to have a slight fit before the eruption, especially if not well aired and kept cool.

The above is the most common routine of a mild disease from contagion. But unfortunately some peculiar condition, or bad management, or the disease not being foreknown, more often bring on a *confluent*, and perhaps a *malignant*, disease. In such case the fever commences with stronger symptoms: the pulse is quick and contracted, the pains in the back sudden and severe, the head is affected with coma and delirium, the stomach is disordered, and is sore on pressure. After two days the face looks like an erysipelas, and the pocks come out as thick as they can stand; they are not extended like the former, but flat and sunk in the middle, spreading into one another, and when separate, the skin is corrugated, and the whole face is

doughy in appearance. These have a white, brown, or black watery matter, which corrodes and unite all the pustules over the face, into one great sore. The fever does not go off when the pocks are out on the face, as in the former grade; it merely remits and gets on again about the fifth day. But when the disease has arrived at maturity, (the eighth) a secondary fever, often with a strong pulse, is formed by the irritation of the external ulceration. The face begins to swell sooner than in the distinct kind, and swells more; producing blindness, and forms altogether a horrid spectacle. The salivation grows more and more troublesome, for the spittle becomes so thick that the patient can scarcely void it from his swollen fauces. On inspection of the tongue many pustules will be found, and the number of these are said by Dr. Gregory to portend the danger from this source. When there is no peculiar malignancy, the great danger lies in the state of the passage to the lungs, where there is such a push.*

The eleventh day is about the critical time, and the patient is then often suffocated by the effusion into the wind pipe; it is, in fact, then much like a croup. But often a different cause takes place, and the fever about the fifth day, or later, from its commencement, is found to be of a low stamp: the eruption looking black, or bleeding. Blood is also discharged from various parts, and the patient seldom reaches even the maturity of disease. On the eighth day of eruption, children are apt to have violent and dangerous convulsions; and if they are not taken off by them, the disease is apt to become malignant. A confluent malignant case is nearly hopeless.

There are some cases that turn malignant before the pocks come out; nothing but petechiæ or hæmorrhage appear in such, with a feeble pulse, coma and death. But such persons have manifestly a bad constitution.

MANAGEMENT.—The patient should have a mattress to lay on, and an airy room with his bed in the middle, and he should not use it much. His diet should be vegetable, and his drinks acidulated: such as jelly


* The Trachea.

water, lemonade, tamarind tea, and barley water acidulated. The temperature of his room should be cool, but not disagreeably so, and the same rule applies to his clothing, and bed clothes. The room should be purified with chloride of lime daily, when the disease has become offensive, and all possible cleanliness attended to: for there is a great tendency to a malignant state, in summer especially. Barley water, gruel, and milk and water will be sufficient for nourishment.

CURE.—A great deal will depend on an early perception that the patient has taken the small pox; for he may then be aired, and his face cooled with a wet towel, often in the day, and he will of course be kept from the fire-side, or indulging in the bed. Purges should be given of salts, not only when the fever is on, but whilst the eruption is forming in the face; and if the fever continues, five grains of pulvis antimonialis may be given every two or three hours. But should the stomach be much disordered about the time of eruption, a puke of eighteen grains of ipecacuana will be of service. The fever powders and cool drinks may be pursued; keeping the bowels perfectly regular, till the patient begins to suffer from irritation and want of sleep; say the third or fourth day of the eruption. It will then be necessary to give a Dover's powder, containing one grain of opium, every night, to each of which two grains of calomel may be added for four times. The bowels are to be watched, and castor oil or clysters used. If the fever runs high in the day the pulvis antimonialis is to be continued, and the Dover's powder at night. As the disease advances we are to look well to the state of the fever and the lungs. If the fever keeps up very high when the face is so much swelled and the lungs so much oppressed, and especially if the patient be of an inflammatory habit, bleeding may be used with propriety, and blistering on the side always: these being the two remedies necessary. The feet may also be bathed to draw the swelling into them, as recommended by Tissot. Barley water, with the continuance of the antimonial powders, are to be used

till the face begins to subside, and the spittle to be free and thin. Children have a lax instead of the spitting, and it must not be interrupted unless it begins to debilitate too much, for it is part of the disease. A rice diet will be enough, in general.

But if about the third day after the pocks are out the pulse is not strong but weak, and the pocks begin to look discoloured, we may expect some malignancy, and then the elixir of vitriol is to be drank, as Sydenham directs, i. e. merely to acidulate a quart of water, and take it as drink; and bark in decoction must be speedily used if petechiæ or any hæmorrhage ensue. Wine-why will be necessary to sustain the flagging pulse. It would be hardly worth while to say that this plan would cure if the pocks are confluent as well as malignant. But sometimes this malignant disposition takes place in cases not so very thick set, and then life may be saved. There will be no need of much coolness when the quantity of the pocks is ascertained, and not at all in a malignant case. Perhaps sponging the parts with a strong decoction of camomile, and when open, sprinkling them with the powder, might be useful in such malignant cases. As some physicians are very partial to camphor, in small pox, it may be used as a stimulant in the malignant kind. The most simple way is to rub it down with new milk, and give it in four grain doses with the bark. As the patient gets weak in any case, we are to support him with gruels, panada, broths, &c.

 If any undulating motion of the muscles succeeds small pox, a few blue pills should be taken; say four or six grains daily, for a week.

CHICKEN POX.

The causes of this are unknown.

SYMPTOMS.—A slight fever attends for a day or two. About the third day the pocks appear over the person, not numerous, but large. In four days they fill with whitish or yellowish matter. They are rather larger than a large Bristol duck shot. They vary, however, in the time of coming out, and filling more or less slowly.

MANAGEMENT.—The patient should be kept cool, especially when in bed; light watery drinks and vegetable food should alone be used.

TREATMENT.—If the febrile symptoms are of any account, or great irritation prevents sleep, some gentle purges, such as Sedlitz Powders, may be used for a day or two.

It would be highly improper for any person to go to laborious work whilst this disease is on him. Slight diseases may be made serious by disregarding them.

MEASLES.

This disorder arises from a specific contagion, and but rarely attacks a second time. It usually appears, as an epidemic, about January, and recedes in summer, though cases are found at all times.

SYMPTOMS.—It comes on like a common fever, with a cold stage, succeeded by a hot one; a nausea, anxiety, pains and vomiting, usually attend. The head and sides are most usually the places of pain. Sometimes, at the very onset, the fever is sharp and violent; but before the eruption is fully out, it is always considerable. On the fourth day the eruption in general appears, though there is occasionally considerable difference in the length of time. With the eruption a hoarseness, cough, difficult breathing, swelling of the eyelids, acrid discharge from the eyes and nose, with sneezing, take place; generally a drowsiness attends the beginning.

The eruption appears at first like flea bites, and extends to the breast, and over the whole body. The face becomes a little tinged, and then the eruptions change from red to brown, and go off; though sometimes those eruptions are found to fill with water, from a secondary kind of fever. In a moderate case, the fever declines when the eruption does, but more commonly hangs on with a cough. A diarrhea succeeds, and this, with an increase of pulmonary affections, show that there exists an inflammation brought on by the disease, which must be attended to as much as if it was a distinct disease.

Thousands lose their health, if not their lives, by suffering the disease *to wear itself off*, as they term it.

MANAGEMENT.—The patient should avoid a heated room, but should not be as much exposed to cold as in small pox. He should have a low vegetable diet. Indeed, his drinks of barley water, jelly water, &c., will be sufficient; for it is truly an inflammatory disorder.

CURE.—Adults with much fever should be bled freely, and have repeated doses of salts, especially if there is pain in the side; and a blister should be laid on the part. Fever powders of nitre and tartar may be given daily, and solutions of cream of tartar used as one of his drinks; and when the disease should naturally cease, that is, at the time of desquamation of the eruption; if the fever rises, and the uneasiness in the breast increases, more bleeding will be requisite; and fresh blistering, with neutral salts and fever powders of the most cooling kind. Children bear bleeding remarkably well, and if the symptoms about the lungs do not greatly abate, as the eruption recedes, it should never be omitted. And it may be well to wait to this period, or longer, before any opiates are given to allay the cough; for we must be sure that no considerable inflammation exists when we use anodynes. When this is ascertained, some pargoric, with a few drops of antimonial wine, may be given, every four hours, if the cough prevents rest. A soft pulse will generally succeed a hard one, when things are going on well. It is no uncommon thing for a stimulating plan to force the disease out of its usual character. People are much alarmed about the eruption going *in*, and give cordials and drugs, of which they know not the operation.* It is an excellent practice to give a dose of salts on the first day of the fever. When the disease gets into a family it is easily accomplished, and diminishes the disorder greatly. Patients, if they are able, had as well be kept up as in bed. If, in reality, the powers of the

* Great quantities of carthamus (of the gardens) are sold for saffron, to drive out measles.

system are so weak as not to sustain an eruption, or if the disappearing of the eruptions are attended with any particular disorder of the chest, or with spasm, and the pulse be weak and low, the patient should be put into a warm bath, wiped well, put between blankets, and a little laudanum and ether given, and this followed by some draughts of warm snake root tea. But this is very *seldom* the case. When blisters have been used, and such a state of lowness ensues, it will be well to dress them with powdered camomile, as they may become gangrenous. Many varieties of this disease are recorded; and patients have had measles a second time, but it is rare. The lax that follows is sometimes troublesome. Small doses of ipecacuana: say one grain for a child, five years old, every two hours, will generally succeed, when assisted with a rice diet; if not, opiates must be added to the ipecacuana. But if the patient is an adult, or nearly so, and full of flesh, and has not been bled, he may be cupped, or leached, on the abdomen; and the ipecacuana used first, and then some mild astringents.

Measles is a great trial to weak lungs, and the physician should have his eye on the issue of measles: hæmoptœ, croup, consumption, hectic, and marasmus, affections of the eyes and glands, &c., show themselves in weakly patients. It is a very easy matter to mistake a bad case of measles, in a grown person, before the eruption. The physician will be sure to call it pneumonia, or highly inflammatory, or rheumatic fever; and it is well if he prescribes boldly for such cases; he will never repent. According to authors, the eruption has varied from two to eight days; some of the epidemic measles have been at times accompanied with a typhus fever; but, says Dr. Potter, this must not sheath the lancet when there are untoward symptoms in the lungs; the child must have a chance, and this is

☞ Infants at the breast, when affected in the bowels, after measles, should not have more than one half the mother's milk; when they cry, let them have thin rice water (in place of the breast) from the bottle. And a similar abstinence should be enjoined, on all other ages, in like cases.

the only one to be relied on: to this, all persons well acquainted with our degrees of typhus, must subscribe.

SCARLATINA AND PUTRID SORE THROAT.

This disease is an epidemic, returning at very uncertain periods, and is supposed to be personally contagious: and some German physicians prescribe the *atropa bella donna* as a certain preventive. Separation in another story of the house, and cleanliness, will do better. But one of the most prudent precautions when this epidemic has a bad cast, and is in the family and neighbourhood, is to take two doses of bark daily, by which means what would be a highly malignant disease will most likely become a mere eruption on the surface. Another highly important precaution is to guard those who have a slight disease from exposure; let them have their throats tied up with flannels, or handkerchiefs, and keep out of currents of air, lest the eruptive matter fall on the trachea, and produce an incurable croup.* The disease is called scarlatina where the throat is little affected and the eruption considerable; scarlatina anginosa where the throat is ulcerous, with some eruptions on the skin; and scarlatina maligna where the fever is typhus; the throat filled with malignant ulcers; and every part of the system verging to dissolution, by diarrhea, hæmorrhage, stupor, sunk pulse, and sordid mouth.

Patients frequently die with the second degree, viz. scarlatina anginosa, from mere febrile exhaustion, without the ulcers becoming gangrenous; and the physician is often puzzled, in this grade, to know whether he may use the lancet. His rule must be to consider the general tendency of the epidemic, the state of the patient before he was attacked, and the advantages of living he has been used to, that might either save him from a typhus state, or push him on towards it; both as to his place of residence, his diet, clothing, and

* The author saw a family with two grades of this disease; and all who were slightly affected, died with croup, and the others, though so much worse, recovered.

cleanliness. To these clues he must add the symptoms. If the pulse has considerable strength; if the muscular strength is not gone; if a delirium attends before complete exhaustion; and also the bowels are in a pretty good state, he may then conclude that it is in his power, by early arresting the inflammatory actions, by bleeding, and by prudent purging, either to prevent the patient from slipping into the third grade, or to save him from death by febrile exhaustion. Children are more subject to this disease than adults; and persons over forty are seldom known to have it.

SYMPTOMS.—It begins with chills, which are followed with an intensely burning heat; a swimming and pain in the head; a troublesome sensation in the throat; sickness and vomiting; looseness, inflamed watery eyes; tumid and flushed face, with stiffness in the neck; a small, frequent, and irregular pulse; fœtid breath, and a disagreeable taste. Very soon white spots appear on the glands situated on each side of the palate; and these, with the adjacent parts, appear swollen and glassy. These spots spread and unite, covering almost the whole interior mouth with thick sloughs; which falling off, leave ulcers. In some cases an intense redness and some swelling extends into the apertures of the nose; on which case the brain seems more liable to be inflamed. On the second day, or later, of the fever, spots begin to appear on the skin, either distinct or in patches, covering (though unequally) the whole surface from the face downwards, giving a stiffness to the skin; they are sometimes not very plain to the eye, though at others much more conspicuous. They go off with a peeling of the skin. The glands about the neck are sometimes swelled to an alarming height. Though the patient's voice is hoarse and flat, the swallowing is not impeded. If the complaint is on the advance, for want of attention, discharges of blood from various parts will show the tendency to dissolution: the teeth and tongue will be covered with a dark sordes; a gangrene will commence in the upper part of the wind-pipe; the pulse will be countless and sink; coma and death soon

follow; and this generally from the third to the seventh day. In some very bad cases, which nosologists might have made into a fourth variety, all the bad symptoms in the fauces and other parts take place before any disturbances are perceived in the pulse.—Eruptions on the tongue, and the earliness of its coming out on the surface, with a fulness of the fingers, will readily mark this disease, so that it be not confounded with measles, (see measles.) It is seldom the case that a person is infected a second time.

MANAGEMENT.—Great attention should be paid in all bad cases to purifying the rooms, by quickly removing all chamber furniture after use; by preventing more than two persons to be in the room at a time; by free access of air in all temperate or warm seasons; by changing of bed and body clothes often; and by sprinkling the floors, after making them very clean with chloride of lime. At fortress Monroe, the hospital floor is kept clean by rubbing it with a small marble slab and some sand, instead of wetting it. The patient should make no effort to talk: antiseptic drinks, such as lemonade and tamarind water, must be given when thirsty. And for diet: gruel, barley and rice waters; and when getting better, or growing weaker from disease, broths, wine-whey, mush and milk. In cold weather the room must be kept rather cool, but always pleasant, with some fire. The frequent washing of the face with a cool towel is very refreshing when the heat is great. Some physicians have extended it, in the first days of disease, to washing the whole body; so as to keep down all preternatural heat. How this will do in our country, and the exact grade that will be benefited, has not yet been sufficiently tested, for the author to recommend it to the patient. But where he has a disposition to delirium without proceeding from exhaustion of the pulse, he would readily extend it over the whole head. It is important to keep the head raised, especially in children, so that the matter of the ulcers cannot be swallowed.

CURE.—In the most simple *scarlatina*, a purge, low

diet, drinks of cream of tartar, confinement to the room, and tying up the throat, are sufficient. In *scarlatina anginosa*, we may begin with a puke of twenty grains of ipecacuana, as soon as possible, and unload the bowels next day by a dose of castor oil. If the disease holds its own in energy and much redness of the eyes and nostrils, with delirium at night ensue; blood must be drawn, and in all cases antimonial powders, with a small quantity of calomel, administered every three or four hours, from day to day: one grain of calomel and three or four of pulvis antimonialis will be sufficient. If these do not keep the bowels open, castor oil may be used. A blister in most cases, (the second day after the throat is ulcerated,) on the neck, will be necessary; which must be dressed with a camomile poultice, going all round the neck. This poultice (merely scalded flowers) may be continued during the whole time that the blister is open. Good topical applications are all important; nothing is better than decoctions of bark, and acids of sea salt, vitriol, and alum candy.* In the interim of using these, the patient may keep in his mouth a quid of scalded camomile flowers, changing them often. When the throat has become ulcerous, instead of the acid gargles, a weak gargle of corrosive sublimate may be used: one grain, with a pinch of salt to an ounce of camomile tea, or decoction of oak bark, will be sufficient. In applying the gargles the patient must not throw them in, and work his throat, as is usual in common sore throat, but apply them with all gentleness: a soft piece of sponge at the end of a stick may be used, or a syringe. For children alum candy will be of great use, in addition to the gargles. When the inflammation is passing off, some gentle tonics: such as elixir of vitriol, camomile, and decoction of bark will be found necessary. If a purging comes on, it must not be suffered to debilitate the patient, but must be arrested with astringents and opiates: five grains of gum kino and one-quarter of a grain of opium, mixed with a little syrup, may be given

* See the apothecarium.

every two hours to an adult. But the bowels must not pass a day without some discharge by enema or other means: for the morbid collections are irritating.

In angina maligna, we may begin with a puke of ipecacuana, and merely unload the bowels, with an enema, or a little rheubarb. A cup of serpentaria, or camomile tea, with one to one and a half grains of ipecacuana to the dose, may be used every hour, alternately, with doses of elixir of vitriol. If the patient seems to sink under these more gentle tonics, the levigated bark* and port wine should be resorted to, and a spirituous decoction of bark, applied by a sponge (not more than milk warm, if so much) over the whole frame, rubbing it dry with the hand: first going from limb to limb, and then over the body. The astringent and acid gargles, with the camomile (as before directed,) must be used; or warm washes of the decoction of bark, or of quercitron, and camomile poultices, may also be applied externally to the throat. If the glands about the throat swell externally, they may be rubbed with mercurial ointment. This was the practice of Dr. Gilder, who had much to do with this disease in the army, and in the city of Baltimore. He also used the mercurial gargles *in all* cases of angina.† In those cases where the pulse is not affected, though the fauces are so malignant, in addition to the bark and wine, and a diet of milk-toddy or wine-whey, the use of red pepper would be advisable, as practised in the West Indies: viz. red pepper two spoonfuls, salt the same quantity, beat them fine, and pour on half a pint of boiling water; draw well; adding eight ounces of vinegar. One table-spoonful must be given every half hour. It may be also used as a gargle. Sinapisms might be used in angina maligna, particularly to the feet, when the disease becomes comatose. The bowels are to be strictly watched, and treated as in scarlatina anginosa, with astringents. There being a wide difference in the opinion of physicians respecting the use of blisters in scarlatina ma-

* See the article bark, in the apothecarium, at the end of the book.

† One to two grains of corrosive sublimate to an ounce of water.

ligna, we may (after the following observations) leave it to the choice of the practitioner to use them or not. Dr. Thomas objects to them, and uses sinapisms in their place. Dr. Rush acknowledges that he has seen them produce great benefit in this disease, and Dr. Gregory prescribes them. It would appear that there are opportunities of using them with great advantage; and that at other times no more benefit might be expected than from sinapisms, and much more inconvenience and risk. In the early part of the ulceration of the throat, before the whole system has fallen into a corresponding condition, we may certainly apply blisters to the throat. The use of them in erysipelas, and their power of arresting the progress of mortification, fully justifies their use. By it we may expect to produce a better condition, and a diminution in the extent of the ulcers; and by the discharge on the surface to prevent the enlargement of the glands on the exterior surface. Moreover, the febrile action may be somewhat equalized by it. But when the ulcers have gained their worst condition, and arrived at a state of enlargement, so as to occupy the whole surface, they require only simple and powerful astringents, and antiseptics as the last hope. And the system when so brought down, by the progress of disease, requires only simple stimulants and antiseptics to preserve life. Blisters may then give place to sinapisms. A camomile poultice and washes of decoction of oak bark will keep the sore from the blister in good condition. The author, therefore, advises them under the above circumstances. When patients are affected with stranguary in any of these grades, warm camomile injections into the bowels are to be used first, and then some of the artificial aerated alkaline waters;* but when very obstinate, the catheter will be necessary. Very troublesome dropsical affections follow in some cases after the disease has passed off. These are to be treated with

* When these are not to be had, the effervescent draughts may be used. See apothecarium, at the end of the book, for the preparations of it.

cream of tartar and saline diuretics: such as the aerated alkaline draught, artificial mineral water, acetated potash, spirit of mindereus, with an excess of acid in it, &c. In some cases of great debility the bark and steel are necessary additional. Perhaps a good deal of the subsequent diseases, here mentioned, are owing to the patient returning too quickly to a full animal diet, which is too stimulating for the weak vessels; or has neglected to keep his bowels in a regular natural order, by diet and medicines.

Children are often troublesome patients, refusing every thing by the mouth. They may have enemata of bark, as well as the embrocation of the spirituous decoction of bark. They will in general take freely of acid drinks a little sweetened: whether quinine will substitute bark as an antiseptic, is very doubtful. In the small hæmorrhages, or bleedings from the mouth, it is usual to apply finely powdered galls. Wild geranium will do as well. If the parts cannot be reached, a decoction of the same may be injected, or some alum water, with a few drops of elixir of vitriol.*

ERYSIPELAS, OR ST. ANTHONY'S FIRE.

CAUSES.—A hereditary disposition thereto, or a peculiar delicacy of the part that suffers in the inflammation; passions of the mind; a sudden cooling of the body after being heated by the sun; spirituous liquors taken freely; hot drinks, or hot baths, checked evacuations, moist air, perspiration any how stopped, and severe cold, generally excite the disease, in those predisposed, and sometimes in any person.

SYMPTOMS.—It commonly comes on with shivering, and succeeding heat with fever. The pulse is generally quick, sometimes hard and full; a confusion of the head,

* An astringent—alum ten grains, blue vitriol two grains, elixir of vitriol five drops, water ten ounces; to be used with a syringe, to stop small bleedings from the nose and throat.

☞ The preparation of bella donna is as follows: three grains of extract dissolved in an ounce of mint or cinnamon water; three drops for an infant of one year, four for one of two years, adding a drop for a year; take it nine days.

and some degree of delirium frequently attend; but a drowsiness almost always, which sometimes increases to a comatose state. After these symptoms have continued from one to three days, a redness, most commonly on the face, appears, which increases with a swelling, that turns white upon pressing it with the finger. This goes on to increase, though it commonly abates in one part to increase in another; in this manner it sometimes extends all over the head, and swells the eyelids so as to produce temporary blindness. Other parts are sometimes the seat of disease; as the legs, back of the hands, &c. It is not an uncommon case for blisters to arise on the swelling, filled with yellow or whitish serum, which break after a while, and leave the part underneath blackish, and very ready to turn gangrenous. The skin between these blisters peels off. Matter is sometimes discharged from the eyelids. The inflammation and fever usually continue about ten days, and then go off. When the fever goes on violently, and the inflammation extends, it is apt to produce an apoplexy in some constitutions. These are the symptoms of a perfect disease, but slighter affections are not unfrequent, with little or no fever.

MANAGEMENT.—The patient should be kept cool, in proportion to the greatness of the fever; acid drinks and vegetable diet should be used throughout.

TREATMENT.—When the case is general and febrile, agreeing with what is laid down above; a pint of blood should be taken away, which may be repeated if the habit allow, and the pulse and inflammation require it. After bleeding, cooling purgatives should be administered: one drachm of salts and one-quarter of a grain of tartar should be given every two hours, mixing it with lemon juice, which covers the bad taste. The parts inflamed should be washed with lead water made pretty strong. This practice of administering salts may be followed for some days; they not only open the bowels, but temperate the heat and fever. In slighter cases, bleeding need not be practised, but the medicines given, as directed in severe cases.

Whenever there are symptoms of putrification, as a low, weak pulse, dark covering of the tongue and mouth, acrid and black spots underneath where the blisters stood; then, all evacuations (except keeping the bowels regular with a little rhubarb) should be laid aside, and decoctions of bark given, and the dose increased as necessity requires, or as it will sit on the patient. Wine and water, and vitriol and water, made by putting two teaspoonfuls of elixir of vitriol to a pint of water, may be drank alternately and freely.—The patient is almost always wanting some topical application; for this, physicians have thought that meal sprinkled on the part is the only proper application. This, when the inflammation is considerable, sits agreeably, and has some effect in softening the skin, and if sprinkled on very slightly, when the blisters discharge, it dries up the humour. However, patients are not content with it; therefore, apply either of the following: half a pint of strong tea of camomile flowers, fifteen grains of white vitriol, and a teaspoonful of laudanum. Or use a solution of alum, as below.*

Sometimes, from neglect, the part suppurates; when so disposed, it should be poulticed, with bread and milk, till it is ripe, when it should be opened and dressed with lint, spread over with some simple cerate; and this need only be applied over the sore.

In addition to what is said above, we may remark that the application of blisters is revived, of late, in erysipelas; and as they are so potent in arresting mortification, may often be used with advantage; and, perhaps, even in those external inflammatory cases, if applied *near* the parts, would be followed by the same effects as when applied in phlegmonous inflammation; that is, they would lessen the extent of the local affection, and hasten the suppuration. When applied to arrest a gangrenous tendency, slips of the blister plaster are to be placed all round the edges of the eruption, three-quarters of an inch deep, and extending upon the sound flesh—the interstice, or area of the eruption,

* Re. alium ten grains, water one ounce.

may be sprinkled with finely powdered camomile, and confined on by a covering of gauze or fine linen.

In the more phlegmonous cases, when suppuration is formed deep, the matter should not be trusted to break through, but the parts scarified to reach it. Some physicians recommend mercurial ointment as a topical application: if it be of use, it must be in such cases as are of an intermediate cast; that is, inflammatory only to a certain degree, and not highly so. These being very common and not dangerous, many things may have a good character without deserving it.

Bark and vitriol, with fresh air, gentle exercise in a carriage in fair weather, will be proper to brace up the system.


URTICARIA, OR NETTLE RASH.

CAUSES.—This disease is also called *essera*. It attacks those of a delicate constitution, and those who have been made delicate by other diseases; particularly by intermittents. It is frequently found to accompany the febrile paroxysms of an intermittent fever. See Cullen's *Nosology*. Women and children, from their fine skins, are more liable to it. It is also said to be produced by certain diets: such as fish in bad order, or naturally unwholesome. Indeed, all the aquatic articles of diet seem to have been accused. A glass of wine will produce it in some habits, and even the white of an egg applied to the skin will produce it in some instances; but the first mentioned causes are the most common.

SYMPTOMS.—Some febrile symptoms precede for a day or two, and the eruption generally comes out in the night. It will often recede, especially in the day, when the skin is cool, and come out when heated by the bed. It will last from a week to months. The form of the eruption will always distinguish it. Sometimes it will be all in raised lumps, like musquitto bites; at others, it will be in wheals, or like the stroke of a whip; quite solid, never suppurating, or forming vesicles. The upper arms, neck, breast, and sides, are

the most usual places of eruption. The itching is very troublesome.

CURE.—The patient should take a little cream of tartar and sulphur to keep his bowels regular, and drink plenty of sassafras tea. For more chronic cases mercury seems most effectual. The blue pill is sufficient. Virginia snake root has been recommended. Perhaps the nitro muriatic acid might do as well as the mercury. For topical applications starch is used; but when the eruptions are very distressing, a mixture of one ounce of sweet oil, one teaspoonful of laudanum, and as much extract of lead may be used frequently. A tepid bath should be used, once in a while, to clean off all perspiration from the parts. But when the eruptions have disappeared for a while, the patient should try to invigorate his constitution, and to avoid returns: by travelling, by taking bark and steel in moderate quantity, but by not using any spirituous mixtures. Infusions of bark, and pills of the rust of steel, will be the best. Bathing in a salt bath will also harden the skin. It would be well for the patient to sleep on a mattress, especially during the eruption.

 A quarter of an ounce of snake root makes a pint of tea; this may be used in a day or two, at most.

In using the blue pill one may be taken morning and night, till fourteen are taken, using the sassafras tea at the same time. After waiting a week, the same number of pills may be used again.

ITCH.

CAUSES.—This troublesome and loathsome disease is in general the effect of filth and cold. It is frequently communicated by sleeping in beds where itch patients have laid, at inns, on the public roads. It is also no uncommon disease at boarding schools. In long spells of cold weather it will attack persons who have lived comfortable and clean. A fish diet, without a full portion of vegetables, has been supposed a source of this disease.

SYMPTOMS.—Small red itching pimples break out between the fingers and other parts, and fill with an irritating water at top, which becomes so intolerable by the heat of the fire or bed, that the tops are scratched off, and little ulcers are left. The disease is thus extended; and it will last a long time when no means are used to remove it.

MANAGEMENT.—Cleanliness, bathing in tepid water, and a low diet of vegetables, are necessary to a cure; sleeping on a mattrass, keeping from the fire and from ardent spirits, are also necessary.

CURE.—There is nothing so effectual as an ointment made with sulphur and lard, rubbed over the whole body, for four or five nights, taking great care not to take cold; but this is a very disagreeable remedy.—Some soap dissolved in rose water to a jelly, and mixed with a teaspoonful of fine *white precipitated sulphur* to each ounce, is the most agreeable of the sulphurs. Though some persons think that in an early affection a glass of sulphur* is sufficient. A flannel shirt may be boiled in a pot of water, in which a roll of sulphur, and a tea-cup of common ley is put; it is then dried in the shade, and worn at night. This was nearly the plan of a celebrated traveller, who assured the author that after adopting it he had no farther trouble. Mercury is the next most usual application. The white precipitate ointment, and the weak red precipitate ointment, and citrine ointment, are the most effectual. Weak solutions of corrosive sublimate, say four grains to an ounce of water, with a pinch of salt to dissolve it, may also be used. Those mercurials are well suited when there are little ulcers; but in all their applications, only the eruptions must be touched, morning and evening, and even then some care used to prevent salivation. The ointment of white helebore is used much as a nostrum. It will, however, if freely used, produce a temporary paralysis in a feeble patient. Fowler's solution of arsenic is sometimes used; it

* The French put some sulphur and nitre in a cup of coals, and put the cup into a warming pan, and thus fumigate the bed.

must be diluted with forty times the quantity of water. There is no question but what a purge or two of salts will facilitate the cure, and in most obstinate cases both sulphur and mercury have been used internally with advantage. Tepid bathing and the decoction of sarsaparilla, may be then joined in aid.

CHAPTER IV.

INFLAMMATION OF THE BRAIN, (PHRE- NITIS.)

CAUSES.—The excessive use of spirituous liquors, sitting up at night, violent passions, grief, exposure to intense light and heat; exposure of the head to a hot sun whilst the feet are on cold ground, as in digging of cellars or marching of armies; suppressed discharges; as of the piles, menses, lochia. It is also symptomatic in some fevers, and in erysipelas; and has been found to form a metastasis with some diseases: particularly with pleurisy. It is not unfrequently the effect of a contusion of the head.

SYMPTOMS.—It sometimes takes place instantaneously, at others it has premonitory symptoms; such as pains running up the back of the neck, head ache, confused ideas, forgetfulness, dreaming, sparkling of the eyes, noise in the ears. But in common it commences with rigours, violent head ache, fullness of the face and neck, with dropping of blood from the nose; red eyes, throbbing of the temples, inability to bear light, or sound, disturbed sleep, and restlessness. A fever more or less violent ensues; the pulse is oppressed and quick; and at other times it is hard and full. The patient continues without sleep, sometimes a week, and becomes delirious, and disposed to suicide; refusing obstinately his medicines. Sometimes very early convulsions take him off; at others he sinks into coma, or dies by febrile exhaustion. It is a dangerous disease, and requires instant and powerful remedies to prevent effusions or partial suppurations in the brain, with their concomitants. Studious persons, in youth and full habits, are said to be most subject to this disease.

MANAGEMENT.—Perfect darkness and stillness is

here necessary; and mere drinks of water are all that is wanted in the first days; after which, barley water and gruels will be necessary. A strong nurse must attend to watch the patient; and all knives and means of injury put out of his reach; the windows should have bars.

CURE.—There is no disease that requires more, if so much bleeding, in a short time, as this: twenty ounces should be taken away from a good large orifice, and repeated in a few hours; or if the patient is found unable to bear more in that way, and the disease continues, leaches or cupping the head and neck must be resorted to.* The bowels must be well emptied by a full purge of jalap and calomel, with a little nitre and tartar in it. If the patient can bear no more bleeding a large blister may be immediately laid on the neck; or whenever there is a reduction of symptoms, produced by bleeding and purging, it may be applied. There is much difference of opinion about using cold applications to the head, and they are certainly dubious; for they will at all events check all perspiration from the surface where they are applied; but this is not all, if they are applied without producing (in conjunction with the other remedies) a permanent reduction of the inflammation, the inevitable consequence is, *an increased reaction*: just as when a well man retires from a cold bath. This is common to all cold applications made of that temperature which will not merely abstract heat, but cause the circulation to retreat from the part. To obviate this, some recommend a tepid ablution of vinegar and water; perhaps the best application would be what the author finds his best topical application to severe rheumatic inflammations; viz. a very strong lead water, made with half an ounce of sugar of lead to a quart of vinegar and water, which may be brought up to the temperature of the body, or nearly

* Some physicians are of the opinion that half the quantity of blood taken from the temporal artery will answer; and in old topers this may be most prudent, as they faint very quickly. A piece of gum elastic pressed over the orifice will stop the artery.

so, and applied in doubled folds of linen to the shaved head. If the feet are cold they must be sponged with warm water, and sinapisms applied to the ankles.—Powders of nitre and antimony may be regularly given, and strong enemias of salts used in a few hours after purging has ceased, as also before it begins. Fox-glove would seem, in cases verging to chronic inflammation, to be useful; as also a gentle salivation. When the disease arises from suppressed evacuations, all attention must be given to restore them, if possible. In piles and in obstructed menses, irritating enemias will be of use: such as may be made with aloes and balsam copaiva, dissolved in sugar and mixed with a common soap clyster. Great attention is necessary to be given to the convalescent, that he expose himself very gradually to the light and air; and he must return very cautiously even to a plain diet. A little elixir of vitriol and camomile may be necessary, if he has been much reduced. His bowels must be attended to for months. A relapse is éasy.

APOPLEXY.

This disease attacks from middle to old age: more commonly men, with large heads and abdomen, short necks, and *strong large pulse*, who have obstructions (especially in their liver,) and are subject to head ache. Those who live a luxurious indolent life: feeding high, and drinking hard, laying in bed, or sitting in a chair or sofa, the whole twenty-four hours; or what is worse, sitting up and carousing at night, will add a moral to a physical cause of apoplexy. To this latter list we may add another set of a different cast; viz. grief and care. When any of the above causes, single or combined, have predisposed the system to this disease, there is only wanting some occasional cause (which would be insignificant, if alone) to bring on apoplexy; such as an accustomed head ache, too long exposure to cold, a concussion of the head, a fit of passion, a long speech, or any fatigue, suppressed evacuations,

any great effort of the muscles, stooping down a long time, and finally a frolic.* There can be no doubt but what it will march, *pari passu*, with the increase of our large cities, and the low price of spirituous liquors. But it must be confessed that the *care* which attaches itself to the modes and trade of a great city, is the source of a very great portion of this disease, and its recent increase. A comparison of the present with fifty years back, taking the same number of inhabitants, will satisfy the most incredulous on this point.† And it were well if care and drink were here to end; but whence comes moping melancholy, pining atrophy, or raging mania?

Women, children, and the coloured race, though these latter are intemperate, nearly escape this disease; because they have comparatively no *care*. The servant is fed and clothed, and whilst he sleeps like a top, his master is tossing on the midnight bed, either projecting schemes to make his fortune, or what is more common, how he may (like the general mentioned in scripture) with ten thousand, meet his enemy who is approaching with twenty thousand; or how he may make terms with him.

SYMPTOMS.—Sometimes a head-ache, drowsiness and swimming of the eyes, or a faltering of the tongue and memory precede; or some disturbance of the stomach or nerves. At other times it gives no warning: the patient bows his head over his plate, or falls from his standing; losing the power of motion. His face is flushed, his eyes become swollen and red, his breathing laborious, with snoring. The pulse, if not immediately, is soon full and slow. Partial cases are not unfrequent, where the sensibility of some part is blunted, or its

* It is no uncommon thing for twenty toasts, at a feast, to be publicly announced, in which every body's health is drank, while the guests are destroying their own; and although some merely sip the glass, others are taking bumpers to expiate the sins (against Bacchus) of the timorous. Is not this a species of suicide?

† In a medical practice in the city of Annapolis and its neighbourhood, for ten miles round, embracing at least three thousand inhabitants, or more, there were not, from 1788 to 1793, more than one or two cases, per annum, of apoplexy. The author was then a student there.

motion impeded by a paralysis. The length of one of the perfect fits is from one or two hours, to as many days. Death is sometimes instantaneous, and at others takes place after a day or two. A vomiting, sweating, purging, or evacuation of blood, generally attend recovery. It is not long, however, before the patient experiences that he is travelling on to another attack, (especially if he returns to his old way of living,) which most of them, from blunted sensibility of mind, seem more readily to do. It is seldom that the third attack is needed to carry the patient off. Though some have resisted four or five.

MANAGEMENT.—Every means must be used to give the patient breath: his head must be a little elevated, his shirt collar unbuttoned, his waistcoat and gallowses loosened; a little water must be frequently put into his mouth; and if he recovers from his fit, every cause that can be removed must be attended to. If he is a townsman, he had perhaps better remove to the country, where work is daily offering to relieve him, and abstinence and frugality no sin; and where he may soon fix what customs he pleases on his new visitors and acquaintances.

CURE.—If the patient is of a robust and sanguine habit, at least one quart of blood must be taken instantly, and not much less in any other cases. A repetition of bleeding, in less quantity, will be needed, if there is any delay in arousing him, and this must be followed up till the pulse feels the evacuation. A blister of large size must be laid on the neck, reaching down between the shoulders, and whilst this is inactive, sinapisms (which act quickly) must be laid on the ankles and feet. A strong purge of jalap and calomel, or aloes and calomel, must be given; and whilst that is inactive, very strong enemas of soft soap, with water, must be given. As the patient, at first, may be unable to swallow, four ounces of castor oil and fifteen grains of calomel, mixed and warmed, may be injected down the throat, with a long elastic tube fixed to a syringe; or some salts and tartar, say two ounces salts

and one grain of tartar dissolved and used the same way. The enemata must be often repeated, and the purges also, till he revives sufficiently. Issues in the neck are used to prevent returns, as also purges and bleeding: this last remedy must be regularly performed, as it will become habitual; and then, if neglected, would be a source of disease. Physicians have divided apoplexy into sanguinous and serous; but the distinction is null and useless in practice, because the same remedies are necessary in both; and they cannot be distinguished but by dissection.

The author has omitted many of the premonitory symptoms of less note, because they are common to other diseases; and might, therefore, give great uneasiness when there is no cause; such as the following: noise in the ears, flashes of light before the eyes, spasms of the eyelids and lips, nightmare, temporary blindness, torpor and inaction of mind and muscles, throbbing of the vessels about the temples, and bleeding at the nose. But when the patient has an apoplectic constitution, and is using the means to induce it, such symptoms should awaken him to a retrenchment and depletion.

Two table spoonfuls of soft soap to one pint of water make an enema, or twenty grains of finely powdered gamboge, and half an ounce of spirits of turpentine, in some broth or milk, is also a very stimulating clyster.

The following table, taken from a French author, by Dr. Dewees, may be worthy of notice, though foreign tables are not to be considered as good as those that might be drawn up in our own country.

| | | | |
|---------|-------|---|----|
| From 20 | to 30 | — | 2 |
| 30 | to 40 | — | 8 |
| 40 | to 50 | — | 7 |
| 50 | to 60 | — | 10 |
| 60 | to 70 | — | 23 |
| 70 | to 80 | — | 12 |
| 80 | to 90 | — | 1 |

63 Patients.

It is probable that a table drawn up at this place would enlarge the numbers from 50 to 60, and lessen them from 30 to 40, and from 70 to 80.

INFLAMMATION OF THE EYES.

CAUSES.—These are external and internal: frequently both unite. The external are, violence, dust, lime, mineral fumes, smoke, insects, cold, strong winds or air directed against the face; very brilliant light, too long applied; sudden changes of weather from heat to cold; viewing (too long) minute objects, or straining the sight to accomplish a full vision of objects naturally obscure, or made so by a dull light; night reading and night watching; passing through woods when the pollen of the flowers or the down of the leaves are discharging; an epidemic state of the atmosphere, and perhaps contagion. The internal causes are checked or retained secretions; as scald head, itch, &c.; long continued ulcers dried up without issues being put in; immoderate use of spirituous liquors and of spices; fevers, measles, small-pox, scrophula, venereal disease, &c.

SYMPTOMS.—An uneasiness of the eye as if it were dry or had sand in it; redness of the vessels, swelling of the lids, pain, discharges of different kinds: watery, gummy, or purulent. In many cases a feverishness attends.

MANAGEMENT.—All causes, if possible, are to be removed. If dust, &c. by simple washes, or oil applied with a syringe. If diseases are the cause, remedies must be applied for them, if they are still accompanying the local disease. A green silk shade, or green glasses, must be used according to the degree of disease; if bad, total darkness is necessary. The diet must be entirely of vegetables; and the drinks acids: such as for fevers, and no spirituous or fermented liquors used. Goggles will be necessary in riding after getting well, as the eyes will be weak; and on this account reading must be omitted for a while, especially at night. All other sources must be avoided, as a habit of disease may easily be acquired.

CURE.—If there be any fever, bleeding will be necessary, and repeated doses of salts, or other cooling purges: such as nitre and jalap. A blister behind the


ears will often have a powerful effect. Washes for the eyes are made of sugar of lead and white vitriol: fifteen grains of either may be put to a pint of rose water, or eight grains of each to the same quantity of very thin mucillage of gum arabic; these are best applied with an eye glass, or with folds of fine linen, and must be applied very frequently. Sometimes these affections are obstinate and painful, requiring a trial of many remedies. Sometimes poultices will answer; bread and milk, or elder flowers are used. Sometimes mercurials are needful, especially when the affection is of long standing: one grain of corrosive sublimate must be boiled in a glass, or china cup, with three ounces of water, and the eyes washed frequently. Dr. Shippen used to make incisions across the inflamed vessels. The point of a lancet may be guarded with two pieces of polished ivory put on the blade of the lancet, but shorter, letting one-sixteenth of an inch of the lancet project beyond the smooth rounded ivory; and the vessel then cut. Little or no pain will ensue: so that the patient will request the operation after once feeling the insignificance of the pain. Opiates are sometimes found useful. Either poppy heads or a watery tincture of opium may be used.* The late Dr. Gilder, of Baltimore, in his extensive practice, used flowers of zinc, in most cases, from the beginning: as much as will go on the sixteenth of a dollar may be put to two or three ounces of elm or flaxseed tea, or of thin mucillage of gum arabic, and applied. Astringents will sometimes answer the best, such as alum curd, made by beating the whites of two eggs with a lump of alum till it coagulates; it is then to be laid between a fold of gauze and applied to the eye. In all cases where the eyes are glued up during sleep, some simple ointment, such as nice fresh lard, beat up with rose water, should be laid on before going to sleep. Issues in the arm are used in chronic sore eyes; and waters in which iron has often been quenched, is used to strengthen them, when merely

* One table spoonful of the watery tincture to half a pint of water: this and the poultices are needful in great pain.

weak. Some of the faculty have great faith in emetics, and no doubt when the disease is febrile, they will be useful. After the eyes have been sore a long time, and especially when affecting the tarsi, the eye lashes will pass their roots through and scratch the eye ball, and thus keep up disease: they must be extracted. Many of the chronic diseases are, in fact, an eruptive disease of the tarsi; such are easily cured by sulphur. See the ointment.

The eyes are subject to a purulent discharge in infants. This yields to astringents and corrosive sublimate washes, using a little castor oil frequently; one grain of this (mercury) boiled in five or six ounces of rose water will be sufficient. It may be applied morning and night, or oftener. The Egyptian sore eyes is of this kind; bleeding and blistering are recommended. Perhaps the corrosive sublimate washes would be useful. However, we hope that we shall not be visited with it. One of the British officers, who had it in Egypt, told the author that the British physician gave him salts daily. Some consider the purulency depending on the magnitude of the inflammation; whilst others consider it to depend on the particular part of the eye affected. From children being as it were born with it, there could not be such an intense inflammation; but there may be something constitutional giving the peculiarity.

Films and opacities are often consequences of sore eyes; they will sometimes yield to strong lead water; if not, they will to calomel* ointment. Mr. Abernethy recommends æther to be applied for opacities following blows. Preparations of copper, as also of red precipitate, are recommended for specks and films; where small ulcers form, the mercurials will be the best.

 Lime is one of the worst articles to get in the

* See the apothecarium, how to prepare it.

Fifteen grains of livigated red precipitate may be mixed with one ounce of oil, or thin lard, and a little applied night and morning.

Three grains of ammoniate of copper may be dissolved in a table spoonful of water, and a little applied morning and night to the opacity or film. But the calomel is far the safest and best.

eye; not a moment should be lost to syringe it out, first with water, and then with sweet oil; perhaps a weak solution of oxalic acid, so as not to affect the eye with inflammation, used before the oil, might unite with some of the particles of lime, and take off its causticity.

Insects will sometimes get into the eyes of children, at night, and the whole external parts be so swollen as to retain a spider, or small beetle. Strong syringing and inspection by opening the parts with tenderness, is needful.

QUINCY (CYNANCHE TONSILLARIS.)

CAUSES.—The application of cold to the neck in riding, or sitting in currents of air; fatiguing the parts by long speaking* or singing. Long standing in cold, damp fields. These causes are pretty sure to cause quincy, or some degree of sore throat, in those of an inflammatory habit; and more especially if any natural or artificial evacuations have been retained. It is said to be found most frequently in the young, and in red haired people.

SYMPTOMS.—An uneasiness is felt in the glands of the throat, which, on examination, are found to be enlarged; the inflammation extending to the *palate*. A chill often takes place, and a very considerable fever follows. After a while, the inflammation extends, and then the throat is so completely stopped, that what the patient attempts (with great difficulty and pain) to swallow, is forced through the nose. The whole arch of the roof of the mouth seems to bag down and fill up the fauces in bad cases. In this way the disease runs on from three to seven days, and then suppurates; giving full and instantaneous relief. Sometimes the whole external throat will also swell, and the obstructed circulation make the patient look frightful. Sometimes the aspect of the inflammation of the

* Perhaps no person ever suffered more, or oftener, than bishop Asbury, with this disease, always on horseback, in all weathers; and gouty or rheumatic, by habit.

fauces will be purple, like an erysipelas; and sometimes the glands of the throat will be hard and firm for a long time, without any disposition to suppurate: like a scrophulous inflammation. The extent of this disease, at times, is so considerable, that it will enter the gullet, or the windpipe, or inflame the exterior muscles of the face and neck. In the erysipelatous kind, the suppuration or discharges are rather superficial. Few patients die with it, though at times it is very distressing.

MANAGEMENT.—The patient should be propped up; so that when there is a discharge of phlegm it may issue outwards, and not provoke him to vomit. Some washes may be used to put in his mouth, made of barley water. His room should be pleasant, but not warm, and well ventilated. No attempts should be made to talk; all communications must be done by signs or a slate.

CURE.—It is true that the disease seldom ends but by suppuration; nevertheless, it is prudent to bleed pretty freely, and purge very briskly with salts, before swallowing is impeded. A large blister on the neck will often reduce the extent of the disease, and hasten the suppuration. Poultices may be put to the neck, on the parts that the blister did not occupy: bread and milk, bran and vinegar, bran and lead water, make good poultices. The lead water may be used as long as there is any hope of preventing suppuration, after which the other poultices are preferable. When it is found that suppuration must ensue, the steams of vinegar and water may be inhaled; but if the swelling threatens suffocation, these steams had better be let alone; and in an extremity, a large incision or two may be made in the most prominent parts. Dr. Gregory advises small incisions in the palate, at first, to prevent suppuration. When chills have taken place, we may be sure of finding matter, if the tonsils are lanced.

The use of the cold bath, or at any rate washing the neck in cold water daily, and the tying up the throat with a handkerchief, in windy cold weather, is recom-

mended; which, with thick soled shoes, used early in the fall, is among the best preventives. In habitual relaxation of the throat, chewing Peruvian bark has been very useful.

This disease will sometimes leave enlargements of the tonsils; which, if very troublesome, are to be attempted first with astringents, and if not removed that way, must be extirpated by a wire tied round them, so that they may slough off.*

MUMPS.

CAUSE.—Contagion is supposed to be the cause.

SYMPTOMS.—It makes its appearance with common febrile symptoms, viz. chills and heats, with an increase of pulse. This is soon followed by a swelling at the corner, or angle, of the lower jaw, of a movable, glandular appearance; which in a little while diffuses itself over the whole neck, on that side. Sometimes both sides are affected. It continues to increase till about the fourth day, and then declines with the fever. As the above recedes, some intumescence is apt to affect the breasts of females, or testes of males. In some cases where these latter swellings have receded, or have never taken place, the febrile symptoms become extended; and even delirium will sometimes ensue.

MANAGEMENT AND CURE.—The patient should be kept on a vegetable diet, and watery drinks; and also remain within doors. When no untoward symptoms ensue, very little need be done: a dose of salts, or castor oil, may be taken, and the parts swollen wrapped up with a flaxseed, or bitter herb poultice, to soothe it. But should delirium ensue, bleeding and purging will be necessary; and some volatile linament may be applied to the breasts, or testes, after a warm bathing; provided there has been no observable secondary affection in these parts.

* The author has experienced inflammatory quincy; not only suppurative, but that species with a hard unyielding polished tumor; and he found no application to the latter but what irritated, except strong warm hyson tea without milk; this always produced an exudation, and relieved the difficulty in swallowing.

HEAD ACHE.

THOUGH this is symptomatic in a great variety of diseases, yet it is often both an independent and a severe disorder; requiring in such idiopathic cases a separate chapter. For the better management, as well as perspicuity, it will be considered under four heads: viz. Inflammatory, Rheumatic, Nervous, and Dyspeptic or Stomachic, Head Ache.

Inflammatory Head Ache proceeds from intemperance, night watching, costiveness, long exposure to sun, heat or severe cold, suppressed evacuations, and gouty diathesis.

The pulse is always full and strong, the eyes commonly inflamed, the bowels inactive, the stomach not much disturbed; merely a loss of appetite at times.

CURE.—Abstinence, rest, brisk purging with salts; and if severe, or likely to last, bleeding at the arm, or leeching, are necessary. There is always danger of this ending in apoplexy, in full habits; and if the pulse has a remarkable strength, and hardness, and fulness, as if the artery were actually increased in its volume, (no matter how thin in flesh) the patient may rest assured that apoplexy is not far off, unless every means are used to prevent it.

Gouty head ache is only relieved, finally, by abstinence, exercise, and a warm climate.

Lusty and plethoric women, that are pregnant, have this head ache. They should not wait for an attack, but bleed beforehand.

Rheumatic Head Ache.—This does not differ so much in symptoms and causes from the foregoing, as it does in the habit and constitution of the patient. The leanest person is as much, or more, subject to it, as the fullest and more sanguine. There is generally some feverishness, though not always. Other parts beside the head are often affected: such as the neck, jaws, and shoulders: such persons have rheumatic affections, often without the head being disordered.

A very common source of this species of head ache is too thin a covering of hair. But damp weather will always test this species. Getting the feet wet or cold, exposure to north-east weather, indigestion, costiveness, &c., are sources and aids to bring it on. The stomach is always unaffected in this species.

CURE.—When very bad it will require bleeding, but in general an early purging with salts, will be sufficient; after which the patient should try to bring on a perspiration. A large bowl full of balm, or hyssop tea, with twenty-five grains of nitre, and thirty drops of antimonial wine, may be drank in bed, after soaking the feet in moderately warm water; or in a mustard bath, prepared by putting a tablespoonful of prepared mustard into a gallon of water. If it resist this, and the pulse is not full, a dose of Dover's powder will generally have effect. Shaving the head, and wearing a cap, or wig, will, in a great portion of cases, prevent returns. The patient's room should be warmed during the attack with a stove, in winter, *night and day, with a steady agreeable heat*; this is all important. A fur cap, and a flannel pillow case, will also be useful. And flannels next the skin are indispensable in winter. The cold bath in summer, especially if the head is shaved, will be excellent.

Patients should always keep near them a box of good aperient pills, and never suffer a day, (especially in bad weather,) to pass without an evacuation. His diet should conspire to this: rye mush and molasses are very aperient. The dyspepsia bread, or bran bread, is also aperient.

One of the greatest means to prevent those severe attacks (so common on the first cold weather in the fall) is to anticipate the change, by putting on flannels, tying up the neck, using a cap, when out in the weather, and to have a very *thick soled* pair of shoes, with worsted stockings, to put on when the ground becomes wet, or cold.

The various topical applications are seldom of any use; but should the patient insist on them, spirits of

camphor, and preparations of ether,* or laudanum, may be used. Such articles as tincture of guaiacum, turpentine, and mustard seed, are only suitable when the case is decidedly chronic. The tincture of stramonium has also had a share of praise in habitual cases. Pukes will sometimes bring on a perspiration, and put an end to it when other things fail.

Nervous Head Ache.—This species is found in two very distinct habits; one of a gross, hypochondriacal habit, generally males; the other feeble, delicate females. In the former the pulse is full, the bowels costive, the stomach windy, though not irritable.—Hæmorrhoidal obstructions in these, (gross patients) and irregularities of the catamenia, in the females, are always times of head ache. And in these latter, even their most regular catamenia begin, or close, with head ache. Females feel at times a tenseness over the whole surface, and at others the pain will be concentrated to the size of a dollar. Neither the stomach nor the pulse will be very much affected in general. The patient will lay as if dead, stupified with the pain. In these it lasts two or three days, but in the gross constitutions it will continue sometimes a week. In this case bleeding will often be the speediest relief, followed by brisk purging, with jalap and calomel. The use of assafœtida and stimulants are injurious in such cases, often prolonging the disease. It runs much in families. In females, after a dose of castor oil, senna tea, or magnesia and jalap, some warm Virginia snake root, or valerian tea, may be drank, and then an opiate used in the form of Dover's powder. The tincture of assafœtida, say a teaspoonful, or as much spirit of lavender, may be used after the other remedies, if the pulse is low. Warm enemata are very useful, and the stove heat, when the pulse is low, must not be neglected. The stimulating topicals may here be useful. A little

* One ounce of ether and one of brandy may be mixed, and one or two of strong vinegar added, for an embrocation to the head. Laudanum may be put on paper and applied. A mustard plaster is often of great benefit. Camphor is a very common application; as also a horse radish leaf, all of which suit nervous head ache.

camomile tea, when recovered, will not be amiss, and pills of aloes and salt of steel, with cold bathing, may be used in the intervals.

Those gross hypochondriacs (who are in some instances females) may find a preventive in a low diet, and purges of tincture of aloes to keep up their hæmorrhoids; not neglecting free exercise. This will be better than trying to evacuate their surplus fat and flesh by chewing, or smoking tobacco.

DYSPEPTIC, OR STOMACHIC HEAD ACHE.—This is the most common species. It comes on after every irregularity of diet, or exposure; and in females, associates with the catamenial period. It seldom leaves the patient a whole month of health: a fatigue is sure to end in stomachic head ache. Its duration is from one to three days. Patients are frequently aware of its approach; and if they have fortitude enough to begin at that moment, to take it in hand, it becomes a short and sufferable disease: but when neglected, is a dreadful affliction. It is attended not only with excruciating pains, but also with vomiting of undigested food, and wind, strong acidities, and phlegm; which for the moment augments the distress, but certainly shortens the disease. There is often considerable fever attends. The distinguishing symptom of this species, is the great disorder of the stomach, from first to last; and the sudden restoration, to full health, in a few hours after it recedes.

CURE.—The method of cure is to refrain from all meats, teas and coffee, from the moment the disorder is discovered to be advancing, taking only some very simple articles to satisfy the appetite: such as a little thin broth, toast and water, or soft egg, and one dish of tea, morning or evening. A purge should be taken as soon as possible: a large tea spoonful of magnesia, with ten grains of jalap, is a very good one; when this is about ceasing to act, the patient must either take a second one, or a pill of aloes and calomel. *Duplicate purging is the main thing*; one purge, unless it entirely removes the disease, makes it worse when it ceases to operate.

After this duplicate purging, if the disease continues, an opiate will be sufficient: a teaspoonful of paregoric, and twenty-five drops of antimonial wine, will be enough. The head must be covered, and the room warmed with a stove, night and day, in winter. The mere going out of the fire reinstates all the pains. Bathing the feet, is sometimes useful as a preventive. When a patient is pregnant, and has this species badly, she may be bled with advantage. Piles that do not bleed, and procidentia, are often connected with this species of head ache.

EAR ACHE.

The great severity of this pain makes it worthy of medical attention.

CAUSES.—A current of air applied to the ear, or to any part of the face, especially when the gums are relaxed and liable to inflammation, or the teeth in bad order: for by a sympathy, the ear will take off the affection from the gums and teeth. Also, small boils and ulcers in the meatus of the ear; extraneous matter lodged in the ear; the entry of various insects, particularly of the beetle kind, with strong sharp claws and forceps, with which they lacerate the tender organs of the ear, trying to penetrate deeper.

MANAGEMENT.—When it proceeds from cold, the patient should cover his ears with a handkerchief, and if attended with fever, return to bed, drinking only warm herb teas, with a little nitre, and keeping silence, as talking is very injurious, from the proximity of the joint of the jaw to the ear. A stove heat in winter will be very useful.

CURE.—When there is a considerable fever, the patient should be bled, take a dose of salts, and apply a poultice of flaxseed to the ear. A blister should be applied behind his neck. Every effort should be made to prevent suppuration. When small boils are the

☞ Pukes are useful in nervous and rheumatic head ache; but not so in this.

cause, a warm poultice, and injections of warm oil, or milk, and steaming with vinegar and water, will be sufficient; for they will suppurate. When ulcers are the cause, the injection of oil, and the application of a very weak solution, made with two grains of corrosive sublimate and five grains of common salt to three ounces of water, should be frequently applied by means of a camel's hair pencil, and the ear well covered from the air by a common poultice, or some cotton. This precaution is absolutely necessary in all cases.

When an insect has entered, some brandy, or tobacco tea, or spirits of turpentine and oil, should be poured into the ear, to destroy it.

And when peas, or small sticks, are put in by children, they must be extracted: a piece of silver wire, a little turned at the end, like the letter r, (in print) may be used to pass beyond the body, and bring it out.

Prevention is always better than cure. And when a patient has repeated attacks of ear ache, he should examine his gums and teeth, and remove every defect,* and also keep a little wool in the ear, when riding through the wind, or a handkerchief over the face and ears, which is still better. There are, now and then, some suspicions of a nervous habit being concerned; in such cases, and in children, as also in some extreme cases of pain, laudanum must be used as the only means of bearing it: this may be injected, and also taken internally, if the topical application is not sufficient. Washing all around the ears with cold water, every morning, will be peculiarly serviceable, in feeble, nervous habits. Molasses, onion juice, burning the external ear, and dropping in oil of almonds, ether, and camphor dissolved in cream, are family medicines. But when the inflammation is visible, none of the warm articles should be applied, or great mischief may ensue;

* The author, after attending a lady repeatedly, for a severe ear ache, without discovering any inflammation, recommended her to rub her gums with bark, every morning. The advice was not readily complied with at first; but was finally adopted, with relief; which was tested by her having the ear ache to return, regularly, on neglecting the remedy.

even the loss of hearing, by forcing an extensive suppuration.

The ear should be well examined by means of a strong light, at night, and by holding it so that the sun may shine into it, by day; which will often discover the true cause.

TOOTH ACHE.

CAUSES.—A general cold; cold air applied to the cheeks in an unusual and sudden manner; acrids, sweets, or acids applied to the teeth; the acrid matter of a rotten tooth; extraordinary violence, as in breaking with the teeth hard substances: blows, &c. Besides these, there are certain disposing causes, under which, the usual exposure we are constantly liable to, is a sufficient cause: as a nerve being laid bare, by rotting, or partial extraction of a tooth; pregnancy, hysteric dispositions, &c.

SYMPTOMS.—These are various in different circumstances. In the tooth ache that proceeds from common cold, there are frequently symptoms of rheumatic affections of the adjacent parts: the pain extending from the tooth to the face, and along up to the temple, with a throbbing of the arteries, redness of the face, and sometimes a little swelling, and feverishness. In most other cases a violent pain of the tooth, with a little inflammation of the gum, are the only symptoms; except that about the termination, the face (in relaxed habits) is apt to swell extensively, or a gumboil forms.

MANAGEMENT.—The patient should carefully avoid every cause, and confine himself to his room. In the case of rheumatic symptoms, his food and drink should be of the weakest and lightest kind; and a silk handkerchief should be applied over his face. In the other cases the face should be wrapped in flannel, and no change need be made in the food, or drink. The tooth should be stopped with lint, or a composition of wax, tar, and alum, made to a proper consistence.

CURE.—In the first case it will be the best way to aim at the removal of the cold, by giving a dose of

salts, and taking a sweat of weak whey, with a small teaspoonful of salt petre, or of antimonial wine. After this, a small blister or sinapism, applied near to the part, will be most effectual. Or instead of this, sweating the part with hot water and herbs, or a hot stone wrapped in moist, or dry rags, may be useful. Generally, in such a case, it will be of little use to apply any thing to the tooth itself, till the above has been done; then a little laudanum and spirits may be held in the mouth. In all the other cases, topical applications are more effectual. The chief of these are opium, camphor, oil of cloves, and other warm essential oils; with these, electricity, burning the tooth with caustics, applying a hot iron to the ear, and many other means, have been at times effectual. But it is often necessary with these to give small doses of laudanum, and apply a blister, or sinapism; and when these fail, to extract the tooth; which may be done at any time, by a careful, trusty operator. But if this does not relieve, (the pain passing to another tooth,) the patient should not insist upon that being drawn, but commit all to patience. The best manner of applying topicals is to insert the medicine into the hollow, and cover it with lint, or a wax composition.*

In some severe cases of tooth ache, with fever, bleeding before blistering is necessary; more especially if the patient be pregnant. Gumboils frequently terminate tooth ache. When they are perceived they should be brought forward, by warm fomentations applied internally to them, and externally on the cheeks.

If persons would clean their teeth daily, with best Peruvian bark, they would never ache but after some severe cause.†

The best compound of laudanum and ether, is the

* Wax, one tablespoonful, tar, one teaspoonful; melt, and mix a little fine alum, whilst hot. It sticks very well after drying the hollow.

† The following is a good tooth powder:—Best Lima bark, in finest powder, one ounce.—Myrrh, or orris root, in fine powder, one drachm.—Prepared chalk, or cream of tartar, one drachm.—The one will be a little acid, the other the reverse. The taste may be consulted for choice.

following, which has been often tried with admirable success, by the author. 'Take spirit of turpentine, half an ounce—camphor, one drachm—ether, half an ounce—opium, twenty grains. Dissolve the camphor in the spirit of turpentine; rub the opium to a paste, with some oil of cloves, or sassafras, and put it to the ether: after a day, add all together. Put some of this mixture on a piece of good lint, and lay it entirely over the aching tooth.

A preparation of finely powdered alum alone, or with ether, has been much extolled, and used here.

Dr. Thomas recommends, in cold obstinate cases, to use pills made with pellitory and gum arabic; one at a time, to be held in the mouth till dissolved. Our red pepper, in small pills, would be nearly the same in effect.

NEURALGIA FASCIALIS, OR TIC DOULO-REUX.

This disease is somewhat allied to the ear ache and tooth ache. It consists in the most sudden and excruciating pains, along the cheek bone, spreading over the face, on one side. The attack is not of long continuance, but the returns are frequent. It has baffled medical skill to a great extent; probably for want of better information as to its cause. Delicate, and pregnant women, are most subject to it; though it is to be found in men with apparent good constitutions. The nerves are said to be the seat of disease, though their destruction, or separation, has not always cured it. There is perhaps a general cause: as for instance, that state which we find in some delicate women, when breeding. There can be no doubt but what there is a local cause also: thus we see such women tormented with tooth ache. Whilst both general and local causes exist, a cure is hopeless. The local causes are most always referable to the teeth or gums. In one instance, a gentleman who had travelled to different cities, to consult physicians, was finally relieved by his own

directions: which was to pull out the tooth over which the pain centered. This, though it gave but partial relief, induced him to pull the next one that appeared most affected, which gave him farther relief; and by extracting a third, he was entirely relieved for many years. The teeth were *sound* to appearance.

In some female cases, the application of the cold bath to the face, several times a day; the cleaning the teeth and gums with bark, &c., and an advanced state of pregnancy, has brought relief. The whole *materia medica* has been exhausted for local applications. Some temporary medicine is anxiously called for to give a momentary relief: laudanum taken inwardly, with opium, and gum plasters outwardly; or spirits of turpentine and cotton, are the chief in use. Prevention is certainly better than cure, if it can be accomplished. The author recommends the following plan to those who are threatened with this most trying affliction. That the teeth be well examined by a dentist, cleaned, plugged, or extracted, when carious; that the gums be daily, or oftener, rubbed with the best Peruvian bark; that some wool, or cotton, be worn in the ears, and the face rubbed, two or three times a day, with a coarse towel, till a free circulation is perceived over the parts; that in walking out, the weather be attended to, and the whole body well protected; especially the feet, by thick soled shoes. Should the patient be delicate, the internal use of bark and preparations of steel, will be advisable. If the patient is pregnant, great attention must be paid to the bowels; and she should loose a little blood at a proper time. Perhaps, in some cases, the disease may invade from a thin suit of hair, as well as by the ears and teeth. In such cases, shaving the head, bathing it in cold water, and wearing a cap, or wig, will be the best remedies. Or if the patient is opposed to this, the use of a fur cap, in cold weather, may do. This should be made with lappets to cover the face when out a riding, or walking. Plasters are a good defence during the pain. The consistence of a plaster so as to be comfortable, and to produce some

perspiration, is half its value: a very good one may be made, simply by adding a teaspoonful of tar to a table-spoonful of melted beeswax. Let it be spread whilst so liquid as not to run through the linen; and after rubbing the pained parts with a mixture of equal parts of laudanum and ether till dry, put on the above plaster. If the tar is disagreeable, the plaster of the shops, called gum ammoniac plaster, may be used.

Some physicians have recommended small doses of calomel, combined with antimonials or squills, so as to act a little on the stomach and bowels. And no doubt when any cold has been taken so as to augment, or bring on fresh attacks, the plan is a good one. And, indeed, in such cases, any of the anti-phlogistic remedies must be useful; and emetics particularly. *Bella donna* has also been used, externally and internally; but from the success of stramonium in rheumatism, and in other irritations, and its greater safety, there is a probability that it might answer better, and be worthy of a trial. This might be made with a saturated tincture of the seed; beginning with five or ten drops; or even by smoking the dried roots of the plant.*

CATARRHAL LOCK-JAW.

This is another of those severe affections that arise from inattention to the teeth and gums. It is generally brought on by a cold in the face. It will often resist every remedy, and after remaining nearly a month, suppurate externally, and leave an ugly scar, and adhesion of flesh to the jaw.

It begins with more or less tooth ache; which soon produces a stiffness about the jaws, and some swelling. The action of the jaws become more and more difficult; closing a little each day, till they are finally brought together, and are immovable. After which, the patient is confined to nourishing drinks for suste-

* An elderly lady who had not a tooth had this complaint; but it was quite sufferable, consisting in twinges, as she termed it; which showed that it had a general as well as a local cause; and that both were necessary to form a severe case.

nance; and even these are badly managed. Almost every remedy that could act on inflammation has been fairly tried, with little effect: such as bleeding, general and topical; purging and blistering. Salivation has also been attempted. It will be well, therefore, not to extend these remedies too far, as they only debilitate the patient. Local applications of a stimulating kind have been useful after a moderate course of evacuations. The spirit of turpentine is the most efficacious: a table-spoonful of this is to be put to a large bread poultice, and laid over the face daily. As soon as the patient finds he is getting this disease, he should send for a dentist, to take out the carious tooth; but if the disease has gone on, and suppuration is about taking place, an opening should be made perpendicularly alongside the tooth, quite down to the insertion in the jaw; that the matter may make its way out, and thus prevent its getting through the flesh of the cheek. Persons of a scrophulous habit, with swelled glands about the neck, and weakly constitutions, seem most disposed to it.

It is a great pity that dentists are so extravagant as to deter almost all people, in moderate circumstances, from employing them. The author has known a dentist, for three hours work, and not fifty cents expenses, charge as much as a common countryman can lay up in a month.

BLEEDING AT THE NOSE, (EPISTAXIS.)

CAUSES AND SYMPTOMS.—Although this complaint is most common to youth, it is supposed to be the most dangerous in middle and advanced age. It will sometimes recur so often as to deprive the patient of his red blood, and to induce dropsy from mere debility. There is very seldom any danger from a single discharge; unless there is something in the patient's habit, independent of a mere congestion in the vessels of the membrane of the nose. A particular state will often cause a troublesome hæmorrhage, from drawing a

tooth, or getting a small wound in a fleshy part. Drink, and a low marshy habitation, will bring on the state (of constitution) alluded to; though there be many other causes. The use of alkali, and bad cured meat, or too long use of salted meats, and low fevers, are accused. When a general and topical cause exist, every hæmorrhage is troublesome, if not dangerous.

There is often no previous warning; whilst in other cases the patient feels a fulness about the head and nose, head ache and throbbing; his eyes appear red, his feet are cold, his bowels costive, and sometimes a chill ushers in the discharge. And if he has been exercising freely in the hot sun, or been stooping long, he may expect a stout discharge, when most of the above symptoms have preceded.

In a great many instances there is some obstruction in the system, that hinders a free circulation of the blood: such as enlarged liver and spleen, obstruction of the catamenia, hæmorrhoids, or simple fulness from flatulency, or costiveness. Long sitting has the same effect: by the resistance and compression it produces, the blood is forced upon the most yielding vessels.

In febrile cases there is often a discharge from the nose; and in all inflammatory complaints, it is salutary, and should not be interrupted: for there is no safer place than the nose for blood to issue from. Physicians have often, not only had a hint, but a help, from spontaneous epistaxis.

MANAGEMENT.—The patient should be supported erect, and remain without talking, or blowing his nose. Some cold ice water may be sprinkled on his face, and some wet salt, a cold key, or a lump of ice, in a bag, put down his back. And some cold lemonade may be given him as drink. If it is a trifling case, this will do without medicine. In the intervals he should be careful to avoid every cause; paying great attention to his bowels, sleeping on a mattress with a high bolster, living lightly, taking care to avoid fruits, cakes, and sweets, and food that produce flatulency. The cold

bath will be an excellent preventive.* All obstructions must be strictly attended to.

CURE.—When the patient has reason to expect a discharge of some magnitude, he should take an ounce of salts, and twenty grains of alum, directly. The coagulating mixture should be applied without delay. But in all cases, if there has not been a smart discharge beforehand, or great debility, it will be best to suffer four ounces to escape; as it will give the remedies a better chance, and nature also, to relieve herself; for the blood that forms the local congestion must come away. Dr. Thomas recommends a dossil of lint to be sprinkled with finely powdered charcoal, and pushed up the nose. There is, however, some danger in introducing fine dry powders, lest they be inhaled into the lungs.† Some finely powdered galls, sprinkled on a fine rag, and rolled up so as to fit the nostrils tightly, and pushed up with care, is a good article. The roller may be damped on the outside, so as to make the galls adhere. Some physicians use a compound solution of alum and blue vitriol, to inject into the nostrils, or push up on lint. But one of the best plans that the author has tried, is to make dossils of new dry sponge, thus: take a piece of new sponge, (that has not been washed out) cut it so as to fit the nostril, say about as thick as the largest sized quill, or rather thicker, and two inches long; (worm shape) make an incision nearly the whole length of it, sufficient to receive a small wire, or piece of whalebone, or a piece of wood, to give it firmness for introduction. Bind this entirely within the sponge, (in the slit) by strong threads, at three places, leaving some of the threads at the extremity, half an inch or more, to hang out of the nose, to extract the sponge. When these are ready, syringe the nostrils with the coagulating mix-

* This alone enabled the author to pursue his studies: it never failed him, though he was before subject to three, and even five discharges a day, if he sat down to read.

† A young man was lately destroyed by inhaling puff-ball mushroom for epistaxis. See the public papers.

ture; then dip the sponges in the same mixture, and push them up each nostril; trying first the one that appears to discharge the blood. They are to remain there two or three days, if the case was dangerous; and then be cautiously extracted, by syringing alongside of them first with alum water, and then moving them very slowly; stopping, if there be any appearance of blood. Should the blood, after these are introduced, still come out into the throat, (for it cannot come out in front) Dr. Darwin's plan can be used without taking out the dossils; which is to immerse the head into a bucket of water cooled down with ice, or with a handful of alum salt. But it will be more convenient to apply a very large sponge full of the cold mixture; and as it may remain some time, it will do better than one immersion. In some cases of insensibility, or bad constitution, or fulness, or febrile obstinacy, none of these will do. Our only plan is then to stop up the nares, both front and rear. This is done as follows: take an elastic bougee, and having made a slit in the end like the eye of a needle, it is to be threaded with two, or more threads of silk, or very strong thread, (just as a needle and thread) this is to be pushed through the nostril till it reaches the posterior fauces, or throat, where it can be seen. Then with a pair of forceps, old blunt scissors, or a knitting needle bent at the point, the thread must be drawn to the mouth, and a stout dossil of firm good lint, or a piece of close sponge, dipped in the coagulated mixture, tied to the end of the thread. When that is done, the bougee and other end of the thread are to be drawn out of the nostril, and the lint pulled carefully to the aperture.* Having done both nostrils the same way, the front apertures may then be closed with lint; so that the passage is mechanically stopped, both front and rear, and the patient prevented from choking whilst asleep, or from bleed-

* A piece of stiff catgut, that may always be procured at a hatter's shop, will make a good bougee; even a duck's feather would do, if eight inches long, turning the quill end in, and making a little side hole.

ing to death. The operator, if ignorant of anatomy, may remember in pushing in the bougee, to aim for the elevation of the aperture of the ear, and not up to the forehead, as the external nares seem to point. Dr. Thomas mentions the use of a hog's gut to compress the vessels. If the gut is dry it must be soaked, and then tied at the end. A feather, or wire, is then put in the gut, to push it to the throat. It is then cut off, an inch or more from the nose, and a strong syringe, with cold vinegar and water, is applied, and the gut is thus filled; pressing every part. It must be tied, and left so for a while; and if the blood still issues, a colder injection may be used. Perhaps the mere filling of the gut with air might do in many cases. As other remedies may be used whilst these surgical means are preparing, or trying, we may apply a blister between the shoulders; give nauseating doses of ipecacuana,* or use Dr. Thatcher's astringent. Or if it can be obtained, Ruspini's famous styptick, internally and externally, as by his directions. Cold enemas may also be used, of salts. When there is much phlethora, and the pulse is hard, we must reduce the febrile symptoms; and an early bleeding at the arm will be very necessary. The purges and nauseating doses of ipecacuana will then be more needful. Dr. Miner has recommended small doses, of three to five grains, of red pepper, every ten minutes, as a sovereign remedy. In cases of insensibility, and low weak state of the system, they may be tried after the other remedies have failed.

Astringents,—One teaspoonful of extract of lead to one ounce of strong decoction of galls, may be injected or applied by a dossil of lint. Wild geranium will substitute galls.

Astringent lotions, to be put on lint and applied topically,—Re. allum, blue vitriol, white vitriol, each ten grains; water, one ounce and a half.

Another topical astringent,—Re. copperas, twenty

* Three grains of ipecacuana, every hour, will be enough.

☞ See the apothecarium, for the coagulating mixture, &c.

grains; alum, ten grains; elixir of vitriol, fifteen drops; water, one and a half ounces.

OZÆNA.

This is properly a limb of the scrofula. It consists in an inflammation of the glands, on the surface of the interior nostrils, which distils a corroding humour, that swells the upper lip, excoriates the skin, and even threatens the destruction of the thin bones within. When considerable, the discharge becomes offensive. It is most common from infancy to puberty. The disease increases by every cold the patient takes, and moderates in warmer and steady weather. Of course, great attention should be paid to keep the children well clad, and warm, and in-doors; when the weather is disagreeably raw and cold. As general remedies, muriate of lime, and tincture of iron; as also Peruvian bark, and bathing (in warm weather) are recommended. But tonics should not be given when the disease is under an increase by cold; on the contrary, the patient should live on vegetables, and take purges at such times. All spirituous liquors, and even cider, should be avoided. As a local application, the following will be found to have a good effect; especially in removing the fætor, which alone is sufficient to debar the children from school and company. Take a carrot and slice it thin, and bake it slowly (but not burn) till it will powder. To three teaspoonsful of this powder, add an equal quantity of Peruvian bark, and one drachm of orris root. Let a little of this composition be put up the nose frequently. The impure pyrolignous acid,* diluted so as to be taken inwardly, and applied to the parts, is worthy of a trial. The taste will be the best criterion; what can be swallowed may be applied as a wash. A teaspoonful of the acid will be enough the first day, for internal use. Children of five years may take five drops of muriate of lime, in a teaspoonful of water, three times a day. By this, older and younger may be regulated. The tincture of flakes

* See the domestic preparation of pyrolignous acid, in the chapter on fætid breath.

of iron in port wine, may be taken three times a day; for a child ten years old, a desert spoonful will be a dose. Bark may be used as often, but not on the same days.

FŒTID BREATH.

This is a too common, and a very offensive complaint. No pains should be spared to get rid of it. Perhaps one of the causes of its being endured is the want of a remedy, or the ignorance of its cause. The person may for a while be insensible to it himself. It arises from various causes: such as carious teeth, uncleaned teeth; ulcers in the gums, in the tonsils, or in the lungs. Diseases of the stomach; as indigestion and worms. Chewing certain preparations of tobacco, will give the breath a stercoraceous flavour; which, though the chewer may be insensible to, yet the bystander is grievously offended. Every man who chews tobacco, or has bad teeth, ought to inquire of his family if his breath is offensive.

CURE.—Carious teeth must be extracted, filed, or plugged; and if any of them have tartar on them, they must be scraped, cleaned, and afterwards kept so by occasional scowerings with charcoal; and daily cleaned with a good tooth powder.* Ulcers in the gums will generally get well when the above has been done faithfully. But extraction alone must be depended on for an ulcer, as plugging will not do in such cases. In bad constitutions it may be necessary to take out pieces of the carious jaw, if the ulcer continues after the tooth is drawn.


Ulcers in the tonsils require astringent washes of oak bark, and weak additions of corrosive sublimate to those washes: say one grain to an ounce. Extirpation is sometimes necessary when they are much enlarged; but they should be first healed. The chewing Peruvian bark is a good remedy for habitually relaxed throats.

As to tobacco, the remedy is simple if not easy, and if the chewer could be permitted to see the *composi-*

* See the tooth powder, in the chapter on tooth ache.

tions put in, to mellow and work the quids, he would be soundly cured. He would find some other waters beside those of rose and jassamine, used! Worms and crapula require their proper remedies. See worms and dyspepsia. When the lungs are the causes, either consumption or syphilis are the sources. In this latter case, small concretions are sometimes coughed up of a most odious flavour; and salivation always produces foetid breath. See the chapter on these diseases.—Hopeless, however, as these cases of foetid breath seem of curing, there may be some palliation. The pyrolignous acid is said to remove it. It must be used frequently: a wine glass of water may be acidulated with it, and taken three or four times a day. It is said to change the worst flavours to that of bacon. A concentrated preparation of this, called a balsam, is sold in Baltimore for tooth ache. The impure acid is preferable to the purified. When this cannot be had, some corn may be put on a shovel, and pressed with a hot iron, till the empyreumatic oil runs out freely; this must be dissolved in some vinegar, and used as a substitute.

Charcoal taken internally, and used as a dentrifice, is also recommended, where the system, as well as the mouth, is a source of this horrible disease. A febrile habit, or a broken down constitution, is sometimes apparently the cause. In such cases, bark, elixir of vitriol, and tincture of iron, should be used internally.

 The odour of an old toper's breath is very obnoxious; but the odour of his skin is still worse. The whiskey seems to change the nature of the perspirative matter, and make it like rancid grease. Water is the cure.

BITE OF A MAD DOG, OR HYDROPHOBIA.

It is a very singular circumstance, that only the canine species are subject to this disease, naturally, though men, and birds, and beasts, receive it by inoculation. Although it has been long known, very little progress has been made, (before the present day)

even towards a prevention; and as to a cure, it remains as far off as ever. Nevertheless, quackery and superstition have exerted themselves on this point. In the days of Pliny, it was given out that the separation of a certain joint in the dog's tail was a sure preventive. But this *trick* wearing out, certain German quacks proposed the cruel expedient of extracting two vermiform ligaments that pass longitudinally, under the surface of the tongue of the dog. If these are peculiar to the canine species, there might have been some suspicion; but, surely, there never was a dog saved by the practice. It would, however, be well for comparative anatomy to point out what marks more than mere generic characters are peculiar to the canine species. 'The anagallis of late days, and the liverwort of former days, and various other nostrums, have long since sunk beneath the notice of common sense.

Dogs are more frequently found mad about the intensity of winter, or of summer; by which it would appear that suffering had some hand in creating the disease; yet, at Cairo, where there are immense numbers of half starved dogs, and a raging sun, they are not found mad oftener than in other places. It will be noted, however, that these Egyptian dogs are common property, and treated with a certain respect, if not reverence; and it is mere necessity that causes them not to be better fed. There is another observation worthy of attention, viz. that the proportion of dogs that go mad in our large cities is small, compared with the same number in villages, and in the country. If a dog is badly treated in town, he can go the next house and find shelter and food, and meet with good treatment. Not so in the country; the dog, if ill treated, resorts to some lonely place, and there remains. And it is believed in such cases without any evacuation: for if a dog is confined, he will retain his *fæces* and his urine a week. Here then is a situation that if applied to the human subject, would make him a hypochondriac, and maybe a suicide. And although this neglect (of an animal proverbial for friendship, associ-

ation, and good humour) and forcing from his natural habits, may not be the sum total of the cause of this disease, yet it goes a great way in the business: for we may suppose of him, what happens to the human subject, viz. that it is a rare case where disease takes place, in which both general and personal causes have not united to accomplish it.

Dogs, when first affected with hydrophobia, begin to be cross to their more slight acquaintances, and have intervals of gloom. This state is succeeded by one of more restlessness and activity. They come out from their recesses, and feel disposed to go from home. Their eyes appear more or less swollen; and they frequently have an intoxicated appearance and action. At every few minutes they have paroxysms of madness: attacking every person and every thing near them. The violence of this passion may be readily conceived from the circumstance of hogs, when mad, breaking their own jaws in biting the logs of their pen. They now trot off, not knowing whither they are going, though in general they go to some lonely recess of woods, or streams, and there die. It frequently happens that they will take water through the first part of the disease. The disease should therefore have another name.

Dissections have shown the throat to be much inflamed in hydrophobia; but the danger of dissection has prevented a full examination. It generally happens that in a week or ten days, after the patient is bitten, that he feels the first symptoms; generally a low desponding state (even if it be an unsuspecting boy;) but at other times his first perception is a spasmodic state of the fauces, or the muscles of the face, at the sight of a shining body, or of water: giving him a complete dread of it. This increases till a violent raging paroxysm ensues, which lasts a few minutes, and then goes off to return again. In the interim the patient has his senses, so as to warn the bystanders against his fury. In this state, their actions are performed with a quickness that exceeds comprehension. The

author has seen a patient take a pill, that was put into his hand, with such a rapid motion that none but the patient could say what he had done; so that there is no safety in their presence, unless they are properly secured. But it has frequently happened that the time between the bite and the disease has been months; and even then coming on after the system had been debilitated by some common disease: showing very plainly that the disease had first to form a local disease, and then be generated from that source. Just as when we sow a single seed, a plant is raised from it, and from that plant's product our garden is overspread. It is, therefore, all important to attend to this first deposit; and it is in all probability never too late, till the dreadful general symptoms appear in the system. It is a pity that physicians had not applied themselves at an earlier period to a rational method of prevention, by attending to the wound; and thus prevented what they could not cure.

METHOD OF TREATING THE WOUND.—The wound, if open and superficial, should be washed with a sponge for *half an hour*, in strong soap suds. After this, a little diluted common vegetable caustic should be applied with a feather, (see the preparation) and then washed off with vinegar, and the wound dressed with red precipitate ointment, and kept open from twenty to thirty days. When the wound is deeper, it should be washed with common ley injected from a syringe, with all the force that can be applied for ten or fifteen successive times; and after that, a little diluted caustic, pushed in by means of a little bougee, made by rolling up a piece of linen to fit the wound. After a minute or two some vinegar must be injected; and if the wound is not enlarged by the caustic, it must be applied again (having washed out the vinegar with some soap suds) and so go on till the wound is twice the size that it was; being sure to get to the bottom, and deeper. It is then to be dressed with red precipitate ointment, pushed in to the bottom with a little lint, and kept open three or four weeks. If it seems strongly disposed to heal up before

this time, some peas may be pushed in, and secured, from time to time; thus making an issue of it.

If the bite has healed, let nothing deter the physician from opening it, and corroding out all the impressions first made. These marks may be often seen, by looking at the wound, when open, with a magnifying glass. To open the wound, a small piece of common caustic is to be put into a hole of proper size, made in a plaster that has been laid over the spot, and this caustic secured with another plaster laid over it. A piece as big as a small green pea will make a smart hole. This is to be taken off in two minutes, and vinegar applied, and the place inspected. If it need be deeper, put in a very small piece of caustic into the hole, and put a pea on the top of it, which will make it sink deep enough in general; but this must be the rule, to go as deep as the tooth went. Dress the wound as before, but keep it open *one month* with peas, &c. If the wound is over a blood vessel, a surgeon should do the operation with a knife. And although we are so ignorant of the disease; yet, as many cases of lockjaw have been removed by causing the wound to suppurate, we should not hesitate to make *an extensive opening* of some inches wide, and quite deep, with caustic about the place of the wound, on the first appearance of hydrophobia, and apply hot suppurating ointments. This has never been done yet, and it is far the most likely to arrest the disease. Nor would there be any impropriety in trying the perpetual influence of opium, by giving it every three hours, joined with calomel.

Dogs should be well treated, and if not out of regard to them; at least for the owners and community. They should have medicine administered to them when sick. They are so every now and then. A good strong purgative of ten grains of calomel and three or four of gambouge, will clear out their bowels, and often relieve them, when they might go mad, if neglected. This medicine should be put into the centre of a piece of meat; and after giving him one or two similar pieces without medicine, he will snap at the other by merely

throwing it to him. But if his stomach is squeamish, so that he refuses the meat; bring up another dog near to him, and he will eat it, merely to prevent the other dog from getting it.

To prepare vegetable caustic for to eat away a wound: take a small roll of caustic, and putting it into a marble mortar; break it, and add as much water as will dilute it to the consistence of very thin cream. It must then be kept closely stopped in a vial.

To make a strong red precipitate ointment, see the apothecarium.

All towns should have a society composed of a few physicians, a surgeon, a clergyman for their president, and many honorary members; who may subscribe a small sum to pay the board of a poor patient. And this society should send handbills out; giving notice that they would receive any patients that have been bitten, *gratis*. By this means many valuable lives would be saved, and quackery put down.

DISEASES OF THE CHEST AND LUNGS.

CHAPTER V.—PLEURISY.

THIS disease is most prevalent in spring and winter. It attacks the robust who work hard, or ride in cold, windy, changeable weather. Those who neglect to put on their coats, after working, when in full perspiration, will seldom fail to have a pleuritic attack; more especially if they are drinkers of ardent spirits. This article not only predisposes to pleurisy, but makes it much harder to cure. 'Twice the quantity of blood must be taken in strong subjects of this description, that would be necessary in others.

SYMPTOMS.—A severe chill often ushers in this disease; which is followed by a high fever, pain in the side, cough, spitting of mucous, tinged with blood; at other times it commences more insidiously, and appears to grow out of a common cough from cold, or from a simple pain in the side.

MANAGEMENT.—This in all respects must be the same as for an inflammatory fever; (which, see chapter 2nd) with the addition of plenty of barley water, sweetened with boiled raisins, to allay the cough.

CURE.—A pint or more of blood should be taken away from a large orifice, without delay. If the fever runs very high, and the cough and pain be severe, this must be repeated in six hours; but if not, a second bleeding may be postponed till a blister has drawn, but no longer, if the pain continues. A large dose of salts should be given on the first day, and small doses (every two or three hours) of the same, with a quarter of a grain of tartar to each dose. About every other day, the fever powders, No. 1, may be given on such days as the salts are not used. The first blister must be laid on the pained part directly after the first dose of salts

have operated; and when the pain continues after a repetition of bleeding and purging, a second blister will be advisably placed on the breast, or even on the opposite side. There will be few cases, where two or three bleedings, with blistering and purging, as above directed, will leave any fever or bad symptoms; but occasionally there will be an obstinacy that will require more bleeding: either from the arm, or from the side, or breast, by cupping, or leeching. And as long as the patient has fever, and feels pain in coughing; so long must bleeding be continued. No procrastination must be allowed; for pleurisy soon runs on to suppuration or effusion. But when we have commenced remedies in time, and with a proper depleting plan, we may bleed much later than is generally supposed; and also later than can be done where the physician is called in, after the disease has been of some days standing. When we have continued this practice as long as seems prudent, and some disease remains; the plan now in use, in Italy, may be tried, viz. giving as much tartar emetic, in divided doses, every two or three hours, as the stomach and bowels will bear; or what is more usual with us, rubbing the last blister with mercurial ointment to produce a ptyalism. There are, however, pains that will sometimes be troublesome without any pressing danger, arising from different causes: first, from some rheumatic associations, with pleurisy. These are not uncommon; secondly, from an excessive use of mercury in the early part of the disease; and thirdly, from a phthetical constitution.

It would not do, therefore, to extend our bleeding to reach the full removal of such pains; but we must assure ourselves that such are the causes, and that we have depleted to the full, and removed all febrile symptoms. Such pains will yield to liniments, plasters, a moderate warm bath, a tartar plaster, and to riding in good weather. The mercury, if not used before, may be always applied for the first and third causes,

PERIPNEUMONY.

This is but a variety of pleurisy. In this, the pains are less acute, and not confined to a rib, but spread over the breast. The oppression is greater, and the discharge from the lungs more considerable. The obtuseness of the pain, however, must not mislead the practitioner; for this disease will require all the remedies *in full* for pleurisy; and nothing must stay the lancet, till fever, oppression, and excessive discharges are fully removed. Drinkers are mostly the subjects of it; and their habits and inflamed vessels, must not be forgotten.

PERIPNEUMONIA NOTHA, OR BASTARD PLEURISY.


This is another, and a very distinct variety, or species of pleurisy. It mostly attacks elderly women, who have been very hearty; as also those who are advanced in life, subject to catarrhal discharges, and somewhat broken down by drink; but still retaining an inflammatory habit. It begins with a very harassing deep cough, attended with pain and spitting. The head is, in general, much affected with pain, and the stomach disturbed; though, at times, the patient has a ravenous appetite. The pulse is febrile, but softer than in pleurisy. One, or both cheeks, are sure to have a round red blotch on them, as if an eruption were coming out. This symptom, the habit and age of the patient, and the great head ache, will always distinguish it from the other species of pulmonary inflammations.

MANAGEMENT.—The same as for inflammatory fever; only the patient should be kept rather warmer, and have, as in pleurisy, plenty of softening drinks: such as barley water, with lemon juice and prunes, flaxseed tea, elm bark, apple tea, &c.

CURE.—Bleeding in moderate quantity at a time must be began early, and repeated three or four times. Blisters must be laid on the breast, after the first or

second bleeding. The bowels must be kept well open with castor oil; but strong and brisk purging is injurious. Some fever powders must be daily administered: first No. 1, and after the two days No. 3, which may be taken with some weak snake root tea. This last addition is most suitable as the strength gives way. The blisters will require a second and a third application. When bleeding has been performed twice or thrice, if there is no chance of the disease giving way, some mercury should be used with the pulvis antimonialis; so that by an application of a little mercurial ointment on the blisters, we may speedily touch the gums. This must be our hope when the antiphlogistic plan of bleeding, blistering, purging, &c. seems to fail in having full effect.

The cough, then, may be treated with more stimulating articles: such as small doses of powdered squills, and alkali: say two grains of the former, and four of the latter, in syrup, every two hours. If this is too stimulating, or even if not, the gum ammoniac mixture, with syrup of squills, may be substituted for it. Purgative and syrup of squills may be used to induce sleep when the patient is harassed; but opiates are not to be used too soon, nor too frequently. See the apothecarium, for prescriptions. The debility that is left requires elixir of vitriol, baccharis tea, and finally, decoction of bark, to remove it. Riding on fine days is useful.

 *Remark*—There are certain slighter cases of peupneumonia notha, especially in delicate elderly women (not plethoric) who have lived temperate, and in most cases have weak lungs. These cases are not so febrile, and if they have not those blotches of red on their cheeks, as above, and the pulse but a little disturbed, they may be treated by leeching, cupping, and by repeated emetics, blisters, and castor oil; and the cough arrested by the gum ammoniac mixture; squill and calomel pills; and a free use of paregoric and syrup of squills, as the disease declines.

SPITTING OF BLOOD, (HÆMOPTYSIS.)

CAUSES.—These are generally of a constitutional nature; but they may be so slightly of that cast as to require great exciting causes. At other times, when there is much of the predisposition, very trifling causes, such as cannot be avoided, will bring on a spitting of blood. Cold, exertions of the lungs or body, sudden changes of weather, and obstructions, are the chief exciting causes.

SYMPTOMS.—Not much need be said on this head, but it is well to know directly where the blood comes from, that is discharged. When it issues slowly from the lungs, it is brought up by coughing, *mixed with air*, like froth; but when it flows rapidly, it will be puked off, and be *pure blood*: this last is dangerous. In most cases the spitting goes off in some hours, or lasts a day or so: leaving a cough. If there are no febrile symptoms, nor any preceding chill, there will not be much blood discharged; but at times it will assume (by fever, chill, &c.) the form of a full morbid paroxysm, and may then be of great importance, requiring attention to it without delay. Men very seldom discharge blood from the stomach; women often do when obstructed in their discharges.

MANAGEMENT.—The patient should be kept cool and quiet, and given some cool drinks, of lemonade, or vinegar and water; and when relieved, should attend very particularly to his diet, dress, bowels, changes of weather, and exercises; for if he exerts his lungs, or makes strong efforts of any kind, he will bring on returns. There is nothing worse than night air for weak lungs. Dust, damp, and strong winds, are to be avoided. Also loud speaking, and walking up steep places.

CURE.—If this disease be trifling, a dose of salts, and a few pinches of common salt, repeatedly swallowed, will be sufficient. When a little more considerable, some of Dr. Thatcher's astringent may be used. (See the apothecarium;) or some alum whey

drank cold; taking the salts, with twenty grains of alum dissolved together.

But when febrile symptoms precede, some blood should be quickly drawn; a purge of salts and alum, as before directed, administered; and as soon as that has operated, some small doses of ipecacuana, say two grains, and one of blue vitriol, given every half hour, so as to sicken the patient. Ice may be applied in a bag between the thighs. It will not be necessary to bleed, if the effusion of blood from the lungs relieves the fever, or if it has been very profuse.

In some cases of great hæmorrhage, the pulse will be small and fainty, and the urine clear, and very alarming symptoms ensue. In such cases, some opiates should be instantly used, to quiet the irritations. These may be given, from every half hour to every three hours: say one and a half grains (or thirty drops of laudanum) with four of sugar of lead, if needed.

Where there is any protraction of the bleeding, or where the feet become cold, sinapisms, and then blisters, should be laid on them. Dr. Minor has recommended three to five grains of red pepper, to be given every quarter or half hour, as a valuable remedy. In cases where opium does not answer, this may be tried, especially to the south, and in a feeble pulse, or case of exhaustion. Enemas of salt and water, quite cold, will sometimes be useful, if used before there is too much exhaustion. It is only now and then that homoptoe has any dangerous symptoms. It is mostly to be feared as the forerunner of consumption.

When the patient has some warning beforehand, he should, (especially if plethoric,) loose a little blood; and if not, take a purge of salts, live very abstemiously and quiet. The *lycopus Virginicus* (coltrops) a plant somewhat like motherwort, but smaller, growing in ditches, is said by some to make a bitter tea, that is a great preventive of homoptoe; but of all the remedies that have been used, there seems none more efficacious than Ruspini's styptic; and patients should be supplied with

it, who fear large discharges; and also have with them, when travelling, some pills composed of opium and sugar of lead; and a lancet. Whether the coadjuvating mixture taken internally would have effect is uncertain. It is worth trying; as no degree of coadjuvation could ensue at the lungs, that would be inimical. It is now admitted that many of these hæmorrhages ensue without a rupture of the vessels; and therefore must depend on a certain condition of the extreme vessels, or of the fluids, or of both.

CONSUMPTION.

CAUSES.—A hereditary, natural, or acquired debility of the lungs may be looked upon as causes of this fatal disorder. Under such circumstances almost any permanent irritation upon those parts will establish the consumption; and it is somewhat doubtful if any cause will do the same without the predisposition.

SYMPTOMS.—A paralytic appearance of the whole surface, adunc nails, cough, pain about the breast; spitting of nauseous matter, at all times of the day: which is sometimes streaked with blood. A fever which comes on at noon: frequently with shivering, and almost always with coldness; remitting towards the afternoon, to exacerbate, or renew its violence at night: continuing with the other affections, and after awhile, being followed in its second fit, (towards morning,) with a copious sweat.

The pulse in this fever, which is a hectic, is quick, and generally weak; though in its first attack some degree of hardness is to be felt. The fever is always kindled by taking much food at a time. Towards the end of the consumption, a lax takes place, which generally carries off the patient. It may be as well here to enumerate the following *premonitory* symptoms of the disease as given by Dr. Rush:—"They are a dry cough, which is increased by the least exercise; a burning and dryness in the palms of the hands, more especially towards evening; rheumy eyes upon waking from sleep;

an increase of urine, a dryness of the skin, more especially in the morning; an occasional flushing in one, and sometimes in both cheeks; a hoarseness, a slight or acute pain in the breast, a fixed pain in one side, or shooting pains in both sides; also head ache, occasional sick and fainty fits, a deficiency of appetite, and a general indisposition to exercise, or to motion of every kind."

CURE.—This should be attempted with every means in our power.

1st. By lessening the inflammation of the lungs; by means of diet, bleeding, blistering, mercurializing, and the use of antiphlogistic alteratives, or what we denominate cooling medicines.

2d. By interrupting the sympathetic fever, and other associate affections, active and passive; with the use of emetics and tonics of a moderate grade; as also by exercise and change of air.

3d. By soothing the lungs, and preventing the patient from being exhausted by mere coughing: with anodynes, mucillages, and palliatives.

4th. By arresting the rapidity of the pulse, with sedatives.

5th. By diverting the irritations of the system from centering in the lungs: by means of counter agents.

6th. By moderating the pressing inconveniences, (accidental or natural) of the disease throughout.

7th. By attending to concomitant diseases.

8th. By opposing instantly the first admonitions of the disease, and removing the accidental causes.

To descend to particulars in corresponding numbers.

1st. Notwithstanding the disease is so debilitating, yet as we cannot act on the lungs alone, we are obliged to act on the whole system, and reduce the inflammatory state of the lungs, and arterial system, by a strict diet, which should be mostly of vegetables. Mush and milk has been justly supposed to give the greatest energy of any diet, without inflaming either the stomach, lungs, or blood-vessels. Eggs and small fish dressed without sauces, are the least stimulating of any

animal food. The stomach, however, must not be thrown into dyspepsia by a large proportion of vegetable food too long continued. Bleeding should be early employed, and done twice a week, in moderate quantity, till the pulse becomes somewhat natural. But even this remedy must be within bounds: for it must be laid down as an axiom, *that no remedy whatever must be continued so as to debilitate.* Blistering must go hand in hand with bleeding in the early stage of the disease. The flies and tartar blisters may be both tried; the flies first. There is room on the breast and sides for three large plasters; and as soon as one dries up another should succeed it, in a new place. Mercurializing is best done with the blue pill: being so harmless to the stomach. When there is pain and tough phlegm in the early part of the disease, and there remains a doubt whether it be consumption, this medicine will be useful after bleeding and blistering; for it will concoct the phlegm, and make it discharge easily, and reduce the inflammatory symptoms. A four grain blue pill may be used two or three times a day. Each pill is supposed to have two grains of mercury. In addition to the above means of reducing the inflammation, we may use antimonials, and some inoffensive neutral salts.

The fever powders, No. 3, or the mixture of soluble tartar and antimonial wine, are probably the most agreeable and innocent, and may be used when the febrile symptoms are most considerable, for three or four times in the day, or night.

2d. It is very important to interrupt the association that exists between the whole system and the local point of the disease in the lungs. This may be attempted by emetics: ipecacuana in doses of fifteen grains taken at once, is the most usual. Some physicians are partial to the blue vitriol (*cuprum vitriolatum*) in doses of ten grains, or the two may be combined: ten grains of ipecacuana, and five grains of blue vitriol, is an efficacious and safe puke. The vitriol must be very finely powdered, and taken in molasses, using warm water when it operates. These may be often repeated

in the early part of the disease, before ulceration is established.

Exercise in the open air by riding in carriages, sailing in steam-boats, and riding on rail roads, are very beneficial to give a stir to the whole system; and perhaps the days are at hand, when riding on rail roads, every good day, will be regularly practised, and a hundred dollars a year, so laid out, will be better than for one hundred visits of the physician. But when the patient gets stronger, riding on horseback is preferable. Dr. Rush was of opinion that even when sailing, bodily exercise was also requisite. Tonics of a moderate class used in the recess of fever, answer the same end. They rank as follows: elixir of vitriol the mildest, hacccharis tea the next, wild cherry tree bark, in decoction, the most stimulating. The vitriol should not be used too freely, as it is apt to move off on the bowels. Five or six doses of either of the above is all that can be used in twenty-four hours; and should be used when the pulse is least active.

3d. The cough that is so necessary to relieve the lungs from the extra discharge, often exceeds its office, from the irritation on them; and the patient is worried by its incessance. Mucillages are the most harmless antidotes. A mixture of these with syrups are useful, but are apt to pall the stomach. Gum arabic, flaxseed tea, barley water, elm bark tea, bran tea, and Iceland moss, are all useful to this purpose. Mr. Wesley has recommended, in his primitive physic, in cases of consumption, a cow heel porridge, which might be considered both medicinal and nutritious. The bitter gums, extracts, and herbs, as also tar water, are more in use after the first period; and opiates towards the last. The gum ammoniac, gum myrrh, and hoarhound, are the chief of the bitter medicines; and paragoric, with an addition of syrup of squills, the usual form of the opiate.

4th. Foxglove is the only medicine yet known, that will reduce the number of the pulse; and when this is quick and threatens hæmorrhage, and in any stage, but

especially the stage preceding suppuration, it should be tried: the experience of Dr. Beddoes is greatly in its favour. Fifteen drops of a saturated tincture, twice or thrice a day, will be sufficient to try its use. But as it may by its continuance produce a fatal fainting, it should be laid aside as soon as the pulse falls to 60 or 70.

5th. As the irritations produced by the reaction of the arterial system are pointed at the lungs alone, before the hectic sweats ensue; physicians have used issues and setons to divert part of this irritation. And it is certain, they have at times counteracted the disorder of the lungs. But like all the other remedies, they succeed best before there is a suppuration. Setons in the side are the most effectual; but as they are rather formidable, they are much substituted by plasters of tartar emetic. These laid on the breast will in a period of one or two days raise a number of pustules, that will discharge a matter; these may be easily kept open a length of time. The counter irritation produced by a state of pregnancy, will sometimes arrest the disease during gestation; but the author could not venture to recommend the remedy.

6th. Very unpleasant irritations are apt to ensue from sudden changes of weather: either cold, or cloudy, or both: bringing on asthma, or increased cough. In such cases the patient should bathe up to the knees in very warm water, smoke a cigar, or apply a simpism, or blister to the side: as experience may direct him to either as the best. But the most unpleasant accompaniment is a diarrhea at the end of the disease. Besides a diet chiefly of rice and arrow root, the patient may use astringents and opiates: 5 grains of finely powdered galls may be taken in a cup of decoction of harts-horn shavings, four times a day. He may use a weak decoction of logwood: say a wine glass full every two to four hours. A marmalade made of the sweet juices of a roasted turnip, mixed with a small portion of the pulp, and loaf sugar, has been used with advantage in hot climates, in the last stage of bowel

complaints; and may be useful in this, as food and physic. Gum kino, and terra japonica are celebrated astringents: ten grains of either, with one-third of a grain of opium, may be taken three or four times a day. The waters that are so numerous over the iron ore hills, in this country, (where a small portion of iron is dissolved in sulphurated hydrogen gas) has a very considerable effect in restraining diarrhea. Hall's, Owing's, Lawson's, and Howard's springs, are all within a few miles of Baltimore. The excessive sweating is also very unpleasant to the patient, and it is hard even to moderate it. The elixir of vitriol, and the other tonics herein mentioned, taken nearly cold, at the very commencement of the sweat, may be useful.

7th. Consumption is apt to be attended with other diseases: as of the liver, which requires an early mercurial course. As also with venereal taint, which also must be treated with mercury. Scrophula is often charged with being the prime cause of consumption. Muriate of lime, Swaim's panacea, and the waters of Holywell, in England, are almost all, except tonics of bark, bitters, and preparations of steel, that have been proposed for remedies against scrophula. Those waters are notorious for having less of mineral contents, than any waters in England. Perhaps, therefore, we might imitate them with distilled water, which could be obtained in sufficient quantities for drinking and washing scrophula sores, or even sponging the whole body daily, if such disease is conspicuous.

Intermittent fevers, during consumption, are very inimical from their association with hectic. They are instantly to be cured by removing from the place of infection: and by emetics, blisters, arsenic, or quinine.

8th. By opposing the disease with vigour, as soon as there is the least suspicion of its forming: which is best done by a journey, if practicable. By removing from the place, if it be a large maritime city, to the country, or some inland village. By changing the occupation from a trade to farming; and by every at-

tention to weather and dress; living by judgment rather than by feeling.*

OBSERVATIONS.—The fœculency of a large city is incredible. As an instance, we may notice the plastering of the highest rooms is discoloured by the juices extracted from the powdered horse manure of a city. The carriages constantly rolling over that article; and its levity when deprived of water, causes it to be suspended in the air, or to rise with every wind; whilst in the country houses, the plastering remains as white as snow. Now this dust of manure, with the various compounds of vegetable, animal, and mineral substances, that strew the pavements, are taken into the lungs at every breath. A large city has seldom fine water; vast quantities of muddy water are drank after every heavy rain, and the wells are so charged with saline matters as to destroy the simple taste. Cooking is done in the worst of these. See Mr. Hunter's analysis of the waters of Philadelphia, about the year 1793. The air of a large city, is like the air of a shut room; till some storm drives out the stagnant gas from the alleys, keys, and courts. But the citizens take colds by such an event, merely from the contrast of temperature, though it be from worse to better in quality. The customs of large cities are at war with health, and invite consumption: *e. g.* a young lady with breast and arms *naked*, and the rest of her body clad in a dress that would bring an ague on a robust ploughman, (under the same exposure) springs out from a hot room to a cold wet street, in a drizzly day; separated from the cold pavement by a pair of stuff shoes, whose sole is about as thick as a sheet of paper; shops about for two or three hours; dodging in and out, from hot to cold, till she begins to feel the effects of the weather; then returns wet to her ancles, cold to her knees, and with a head ache. At night she is seized with a cough and fever that will confine her for a week. In this act she encounters at least three impressions of tempera-

* All the different occupations that charge the air, breathed with hard or soft particles, are injurious to the lungs.

ture; either of which is a full, or overmatch for her: first, from a hot room to the open air; secondly, from the carpet to the out floor; thirdly, from this to the damp bricks. Whilst, at the same time, a careful servant would throw a baize cloth over a glass ornament to keep it from cracking, whilst making the same remove. It is a well known fact, that what is not naturally inimical in the temperature of the weather, is made so by a sudden vicissitude. And here we make the vicissitude ourselves, even when the air is stationary. Experience has proved, that all large cities placed on flats, and exposed to the vapours of the river or sea, in a northern clime, are very inimical to weak lungs. It is in the power of many individuals to leave such places, and to resort to more healthy situations, and to upland southern climes. It becomes their duty when they are threatened. It is also in the power of a large number of persons to remove a few miles out of town, which would alone save many from an untimely grave. For we must recollect that when the predisposition is but small, that great accessory causes will effectually bring about the disease.

The numerous writers on consumption have rather clouded than elucidated the subject, by attributing consumption to so many causes. If they could only strike on the main root, and cut that, the branches would be readily subdued. No candid physician can say, with any confidence, that he can either explain the disease, to full satisfaction, or prescribe remedies that will be certainly effectual. If each one that attempts the subject, will only furnish one well grounded fact; perhaps a number of such, will open the way for a better theory, and more effectual remedies. When the bowels are attacked, we can refrain from food; and when the muscles are oppressed, we can lay down, and ease them of a great part of their usual burthen; but when the lungs are diseased, what can we do? The atmosphere rushes into them, without regard to their debility, and imposes on them all the labour of health. From this, it will be seen how difficult a task it is, to

remove such a disease; even when the atmosphere is pure and temperate.

Inflammation of the lungs, attended with fever and suppuration, is not always consumption. A man may have a ball pass through his lungs; he may have a pleurisy ending in suppuration, and not approach the disease. He may have weak lungs, or badly formed chest; and be troubled with regular asthma, or perpetual dyspnœa, (difficult respiration,) and yet live a long life, without being a consumptive patient. To all the above, every age is liable; but to consumption, the first part of youth or childhood is rarely subject; and when so, then it is most always a true inheritance. It is at that point of life when every organ of the body is, as it were, evolved, and when we should expect perfect energy, that the deficit is discovered. Physicians scarcely ever dispute on the appearances on dissection. Extended inflammation of the lungs, with suppuration, vomica, tubercles, consolidated lungs, with watery effusion, are always conspicuous; but the original cause of this organ (the lungs) being the main seat, is more obscure. Previous, however, to the discovery of any such state, or almost to the suspicion of the lungs being the seat of disease, we observe a *paralysis* of the whole surface; which, when the lungs are the seat of the disease, is accompanied by the symptoms before enumerated by Dr. Rush. But such a paralytic state is also a precursor to other diseases. It is no uncommon thing for it to end in dyspepsia, if the lungs are sound; or if the lungs and stomach are both sound, in rheumatism. And so of some other capital diseases. But the question is, has not some imperceptible defects in the lungs preceded this languor, or paralysis, over the system? And when, by progress of the original defect, this organ has become the subject of chemical law,* instead of animal law, (forming local disease) it has taken into full association those parts that are now visibly paralysed; thus making a general disease, of which the lungs keeps her prominence in the morbid actions. Again, is

* See the philosophy of disease.


this defect in the lungs natural or acquired, or both? The latter, in general, is most probable. As to the first or natural,* because it became visible at the moment the system was fully evolved, when perfection instead of defect should be looked for. And as respects the acquiring the disease, we see very plainly many causes that indubitably tend to injure the lungs, particularly such as we noticed in our remarks on large northern cities, and their customs. We may add to these voluntary causes, a total inaction of the arms of citizens of the genteeler class. Only look at their soft and feeble hands!! It is the action of the arms that move the muscles over the breast; and in proportion to the inaction of a part (destined for action) so will be its liability to take disease. It is worthy of observation, to notice the great pain that follows, when muscles, not used, are brought into a little common action. Only set a writing clerk to gather a few apples, and he cannot move next day. Or let a man jump, or swim, after a few years' neglect, and he is laid up. But, though exercise hardens the muscles, it is possible to overdo the action of the arms in feeble constitutions; and even bring on consumption. This has happened to curriers and plasterers. Vast numbers of those who have acquired consumption, have their first pains merely in the muscles of the breast; which transmit their inflammatory diathesis to the lungs: as external pains of the head do, after long continuance, to the brain. It has frequently happened (for us, in cities,) to see a family deprived of its support, by the death of the husband. And after necessity pinches, we see the helpless widow, a mere shadow, (having lived up to the fashions of the city) going breathless and gloomy, (pitied by every acquaintance) with a little basket to the market. But, perhaps, before the end of the year, you see the same woman, a fine, rosy, active, smiling widow; merely by exercise, temperance, and following the laws of nature, in exercise, eating, and sleeping. And all this,

* The word *natural*, will include here both hereditary and simple connatural.

the effect of bringing those muscles that were at constant rest, into action; and by disburthening the oppressed organs.

It is, therefore, absolutely necessary to give nature fair play; for, if not, we suffer; and also entail this debility on our offspring. The gymnastic exercises are excellent for children. Every muscle should be brought into action; but especially the arms. Swimming is a charming exercise for the lungs. And if we follow all the means in our power: by exercise, by removing to country air, or to the south; by following a suitable occupation, by travelling, by dress and diet, early rising, early going to bed; as also, by vigorously attacking any accidental cold; and not trusting merely to coughing off disease, or to quackery; we should find a great diminution of consumption.

So long as consumption may be ranked as a *spurious disease*, i. e. proceeding from the irritations of an unwholesome atmosphere being too powerful to allow of healthy actions, in the enfeebled stamina of the lungs; so long it may be a curable disease. But when it has changed to *genuine disease*, i. e. a local phlegmasia is established, and the structural composition of the lungs altered; suppuration must ensue, and the effect (if extensive) will be an incurable ulcer, with all its hectic concomitants.

 The preparation of myrrh, suitable for consumptive patients, may be made as follows:—Re. myrrh, two drachms; potash (salt tartar) one drachm; rub them with a few teaspoonsful of water till the myrrh powder is completely dissolved, and add as much water, or thin mucilage, as will make five ounces.—One ounce may be taken every four or five hours. If the alkali is very disagreeable, add a teaspoonful of lemon juice, to each dose, at the time of taking it.

The roots and leaves of the *verbena urticifolia* is used much in Pennsylvania, as a tea, in threatening cases of consumption.

The *anemonia hepatica*, is also drank with the same intention, in a decoction.

The *Lycopus Virginicus* is also used when there is a discharge of blood. See hæmoptæ.

For other prescriptions, see the apothecarium.

ASTHMA.

CAUSES.—Although asthma is a disease long known, and well known; yet little progress has been made in the cure. All seems to be done rather empirically than systematically. Physicians have agreed pretty well as to the exciting causes; but differ widely, both in the proximate cause and cure. A young physician would be sadly barricaded in trying to make a strait course through the opinions and practices of Drs. Bree, Gregory, and Potter.

The exciting causes (acting probably on some constitutional susceptibility of the parts) are as follows: cold and moisture, heat and moisture; more particularly when in a confined and damp apartment, as in a cellar; sudden changes of weather; and any causes that would produce a common cold. Too severe exercise, bearing on the lungs: such as sawing, speaking loud and long; all irritating exhalations: chemical, or mechanical; even the dust of hay, the smoke of a chimney, &c. Another source, is overloading the stomach, or indigestion, and flatulency. With dyspepsia, the disease is often associated; and even will take a change for a whole season with a dyspeptic patient. To these we may add passions of the mind, and suppressed evacuations: as catamenia, and piles. There is no disease more indebted to habit for returns; and after it has continued for years, causes that would have no effect, in the beginning, bring it on. As to its pathology, the most simple idea is, that the membranes of the bronchiæ are brought by the aforementioned causes (acting either immediately, or by sympathy) into the same state that the sniderian membrane is, by a cold, which is sometimes attended with a free discharge, and then again is quite dry. There may be a little more difficulty in adjusting this theory to such causes as

act through the mind; but we find no hesitation in ascribing inflammations of the brain and heart, to such causes; and why not of the bronchiæ, and even the low passions, induced, expose the whole system, and never fail to produce head ache, dyspepsia, and a great variety of inflammatory as well as nervous disease.

SYMPTOMS.—We may remark that all those difficulties of breathing, arising from fevers, pleurisy, dropsy, apoplexy, nervous weakness, &c., are not to be considered as asthma. Asthma is a periodical, solitary disease, returning frequently, and seldom leaving a patient entirely. The pulse is not much affected. The excretions from the lungs are sometimes very great, especially as a fit declines; but at other times quite small, which should make no distinction in the remedies. The paroxysms generally begin at night, and last from one to three days; diminishing each day.—Though the disease, at times, gives no warning, yet, in general, some premonitory symptoms give notice: such as nervous depression, lassitude, drowsiness, pain over the eyes, fullness, and disordered state of the stomach.

When the attacks are at night, there is generally some remission in the day. The breathing is so streightened, and the breast so tightened, that few patients can remain in bed without being well propped up. There is generally some cough which brings up phlegm, with relief. It is truly distressing to see a patient in this disease; and it may be said that the uneasiness of a bad paroxysm is equal to the (bodily) suffering of death, in most other diseases.

The breathing is performed by gasps for a considerable time, and accompanied with a wheezing, and inability to talk, and all the unfortunate patient seems to ask, is for fresh air. With all this oppression the patient's face is rather pale than red, or blue, and the pulse often small. The disease is rarely mortal. Some patients have been obliged to remain sitting in a chair from ten to twenty years, as merely laying down would excite a partial paroxysm.*

* In such cases there is generally some personal defect, or great obesity.

CURE.—An axiom running through all the prescriptions of this book, is here applicable, viz. that in diseases of the lungs, heart, or brain, the pulse is not to be regarded as a true index of the powers of the system, or of the disease. Therefore, in all cases where the constitution is sound, in the general, and the asthma a new disease, though the pulse be weak, there are few cases that will not be relieved considerably, by bleeding. But when asthma becomes an old thing, or is very frequent in its returns, or where much of dyspeptic symptoms take place, or nervous affections precede or attend, or the patient broken down, then we may omit the lancet. The premonitory symptoms, before enumerated, call upon us to clear the bowels, by a dose of oil, or of rhubarb and magnesia, of moderate size; or if there is not time for a purge, an enema may be used. When the fit is about taking place, fifteen grains, or more, of ipecacuana may be given, with good effects. Some physicians think the stomach should never be quite empty in asthma; to prevent which, the puke may be administered an hour sooner, and a dish of good coffee taken directly after the operation. Coffee is a favourite drink for asthmatics. When the fit is established, small doses of antimonial powder, or of ipecacuana, may be administered every two hours; or if there is much disturbance of the stomach, twenty-five drops of ether, diluted with a teaspoonful of brandy, may be given with as much antimonial wine occasionally. Should the disease promise to last two or three days, after trying the above plan, opiates may be prescribed.—Dover's powder may be used, or some laudanum may be combined with a little ipecacuana: say two of this and twenty of laudanum. Or a pill of calomel and opium may be used (one grain of opium and two calomel) two or three times in a day. The vinegar of squills is highly extolled by many physicians, and fifteen or twenty drops may be interposed between each opiate; but the squills with nitre will be more proper when no dyspeptic cause, but a pure pulmo-

nary one has induced asthma. Blisters after the first night's attack is over, may have a tendency to prevent a recurrence the ensuing night, though they are not often used; probably from the desire to add no more to the patient's suffering. A tartar plaster, in a protracted case, would be of great importance. To some patients, warm drinks are offensive; and they require both air and water as cool as they can get it. Where warmth is not objectionable, inhalations of warm tea, taken through Mudge's inhaler, will promote the discharge of phlegm; but in most bad cases the patient cannot even shut his mouth to inhale. Acids are recommended by some physicians, whilst others praise the mixtures of chalk and alkali. The different states of the stomach will determine between these. It must be an axiom never to use any article that would inflate the stomach and bowels; as it would be the same in effect as to diminish the cavity of the lungs. When the fits have passed away, the patient must put himself on a course to prolong the interval of a return, by the strictest diet, suitable to his digestive powers, and by attending to his bowels. By wearing flannels in winter. By avoiding bleak winds, and damp grounds, passions, high and long speaking. By sleeping on a mattress; with light, though warm covering. By watery drinks, and moderate exercise; slowly ascending hills, or stair cases; and, finally by using some good tonics; such as preparations of steel and ginger, rust of iron and rhubarb, columbo and other bitters, of the milder cast. See the prescriptions at the end of the book.

There is no one, common article, so much used for a preventive as garlic, taken a day or two before the expected fit. It should be pounded well, that it may be digested, and then eaten with bread and a little butter, in the morning; or with a little lettuce and oil, at dinner. The testimony in its favour is great. The smoking of James-town weed, in the fit, is perhaps no better, if so good and safe as tobacco. But after all, it is so constitutional in some families, that all the pru-

dence of the patient will not prevent returns. It is singular that in some cases, (where the patient has been of a large and corpulent habit,) that the disease has declined as the person has lost his corpulency: shewing very plainly, that there were some accidental, as well as constitutional impediments, that facilitated the disease.

HOOPING COUGH, OR PERTUSSIS.

Both the original and proximate cause, of this common disease, are obscure. It appears so far contagious, that it seldom enters a family, or neighbourhood, without subjecting all the children to its influence. Adults are rarely attacked; a sufficient poof that it is not a variety, or species, of cartarrh, even if its contagiousness alone is not. It is, however, in many instances, very like a common cold, for a week or two; differing but little, except that rather more drowsiness attends.

The most obvious, distinguishing characters, seem rather consequences of the first stage. It would appear as if those latter symptoms of convulsive cough, hooping, whizzing with discharges of mucous, rupture of small vessels, puking, and sometimes an epileptic fit, were the progeny of a large regeneration of the fomites of the disease, acting as extraneous matter on the lungs and brain. There seems to be no knowing where the disease ends: for by the time this fomities diminishes, or wears out of the system, the muscles of respiration (so concerned in the distressing symptoms of the disease) have attained such a habit of being roused into action, by the application of external irritants, that the worst symptom (viz. cough) is often protracted for months. Moreover, if the patient has naturally weak lungs, or is not well taken care of, or is not duly evacuated, associate inflammations are sure to enhance the difficulty, as well as the danger of disease. Besides the affection of the lungs, the head is generally wracked with severe pain, over the eyes; and the stomach and bowels are often troubled with flatus. The coughing returns at no regular period;

sometimes it is not absent more than half an hour; and then again it only returns every three or four hours. In all cases, each fit continuing almost to strangulation. Puking generally ends a paroxysm, with some discharges from the lungs and stomach; and then the patient is relieved, and craves something to eat.

In common cases, where no untoward association takes place, the febrile symptoms are confined to the first stage; ending when the convulsive cough begins. It is a great trial to weak lungs, disposed to consumption or asthma; and those who may have a predisposition to epilepsy, or hydrocephalus, are in great danger: for the transit of the disease to the brain is easy, and often brought about by the hurried and injudicious use of opiates, before proper evacuations have justified them.

Dissections have shown the brain variously diseased after death, by pertussis. The disease terminates fatally in coma, epilepsy; or is drawn out into a slow fever, or marasmus. There have been many epidemic coughs that have imitated this disease pretty closely. Many persons have attributed their asthmas and consumptions to this disease. Boylivius, in his day, did not separate whooping cough from common catarrh.

MANAGEMENT.—This is of great importance. The patient should, if old enough, be put on his feet, with his head bent downwards, and supported during the cough. Infants who seem to do as well as others, from their readiness in secreting and puking, must be lifted from the cradle, and supported in the best manner; but not by putting the hand against either the breast or abdomen, as mothers do when the children are well. Perhaps a good way would be to put the child in the lap, with the mother's feet a little pushed out, and her hands under each armpit of the child; and if another person is by, to hold its head: the back of the child may then be to the mother. But if this cannot be done, then let the child's face be to the mother, so that its head may rest with its left ear against her left breast, keeping the mouth free. When children are

old enough to eat, great care must be taken that they eat nothing that will disagree with them. The simplest food, in small quantity, so as not to distend the stomach, must be used: such as rice, mush and milk, and all light farinaceous preparations. Great care should be taken to keep them out of dust and smoke, and to keep them from running about; though they should be carried out in all fine calm days; well dressed for the season, and in cold weather with flannels, keeping in a well tempered room when at home. They should be kept in good humour, by riding them, pleasing them, and hindering other children from teasing them. And when the last stage of disease has lasted a month, or six weeks without abatement, they should be removed. The author has witnessed a cure in his own family, where merely crossing the Chesapeake put an entire end to the disease. The child never had another paroxysm after landing.

CURE.—When the disease promises to be severe, and has inflammatory symptoms, viz. fever, with stricures over the breast, or stitches in the side, discharges of blood from the lungs, much harassing pain over the eyes; or if the above symptoms have occurred from any association with weak lungs, or other inflammatory affections, we must, in such cases, trust only to the purest antiplogistic plan: by bleeding, and by repeating this operation if not generally, locally: leeching over the breast. Also by repeated puking after bleeding. Purging, and blistering, should be faithfully administered in due time. In more moderate cases, this must be the first course. After the proper evacuations, as well as in the intervals of administering pukes and purges, some antimonials should be prescribed, in small doses. Dr. Dewees seems to be well pleased with a compound syrup, prescribed by Dr. Cox, in croups. It is certainly a good medicine. When we are sure that there is no danger of rousing the inflammatory disposition, much good may be done by giving opiates combined with antimonials, provided that the harassing of the cough, and want of rest, calls for them. Dr.

Peirson recommends a compound of opiates with ipecacuana and salt of tartar. This last article is now a favourite family article, used with cochineal, which is probably of no farther use than to colour it. That this article has some tendency to loosen the phlegm there is a great probability; for acids are notorious for the contrary operation, though given so often in coughs. When debility and habit begin to be felt, or suspected, the Peruvian bark is one of the best medicines. Dr. Letsom's anti-pertussis* is a compound of bark, pargoric, and cantharides, which at times is singularly efficacious.—When children cannot take bark (unless under three years) they may use quinine, and even Fowler's solution of arsenic, largely diluted: say one drop to one hundred of water; which generally may be given every two hours, to a child five or six years old. The various antispasmodics, as well as the medicine of the poisonous class, as also those whose operations are so powerful as to suspend the regular distributions of the nervous energy, may be passed over by families at least; for whom this book is mostly intended.

Tartar plaster may be serviceable in old cases, or where the lungs have received an injury.

Prescriptions for children seven years old:

Eight or ten grains of ipecacuana may be given to a child seven years old, or two grains of vitriolated zinc dissolved in a tablespoonful of water, and given every quarter of an hour, till it vomits.

Five drops of laudanum, one grain of ipecacuana, and five grains of salt of tartar (dissolved in water) and two other articles, with some syrup, may be given every three hours, to allay the cough.

When the salt of tartar is given alone, thirty-five grains are to be dissolved in a wine glass of sugar and water: two teaspoonsful are to be given every half hour.

Ten grains of jalap and ten of cream of tartar, or

* See the apothecarium.

five grains of jalap and four of calomel, are to be taken in syrups as purges, once a day; or castor oil, or senna and manna may be used as most convenient.

Five grains of finely powdered seneca, ten drops of antimonial wine, and one teaspoonful of syrup of squills may be used every two hours, as a substitute for Cox's syrup, when that article is not to be had.

CATARRH, OR COLD.

CAUSE.—Changes of weather, or imitations of changes: by imprudently heating, or cooling, the body, in quick succession; or by unseasonable clothing. Also partial exposure of the person to streams of air, &c.

SYMPTOMS.—A difficulty of breathing through the nostrils, as if they were stopped up; stiffness, and partial inflammation of the eyes and throat; as, also, pain over the eyes. When the disease is more considerable, there are repeated chills running over the surface, and subsequent flushes; a cough and hoarseness, flying pains, and some increase of pulse; which, with a general difficulty of respiring, fill up the usual course of symptoms.

As the disease declines, a kind of concoction of the phlegm takes place, and it is spit up freely; white or yellow; and after more or less time, say two or three weeks, it ceases.

CURE.—If the feverishness and difficulty of exercising the lungs be considerable, bleeding should not be omitted; and in consumptive habits, or predisposition thereto, bleeding is indispensable; as also in all catarrhal affections of any magnitude. After which, some salts or other cooling purge may be taken, and repeated in forty-eight hours. It will be always proper to keep to the room, and sometimes to the bed; as, also, to soak the feet in warm water, and take, in the early stage, nitrous and antimonial fever powders, every two hours, in warm balm tea; using also plenty of good mucillagenous drinks every half hour: such as barley water, bran tea, elm bark tea, mallow tea: any of which may be acidulated with lemon juice, or

cream of tartar, or tartaric acid, and drank warm, so as to promote perspiration. When the feverish symptoms have abated; or when they have been more lenient, the following mixture may be used instead of the fever powders, in proportions of two dessert spoonsful at a time; (so as to use all of it in twenty-four hours,) viz. soluble tartar, two drachms; loaf sugar, one ounce; nitre, and antimonial wine, each one drach; water, four ounces. After using these some days, so as to reduce the inflammation; a dose, or two, of paregoric and syrup of squills may be taken at night, to give rest from coughing. And for a day mixture, bran tea, with licorice root; or oatmeal gruel, with sultana raisins.

When there is a consumptive habit, the cold will be more tedious, and blisters, or tartar ointment, to the breast are necessary; and subsequently pitch plasters. In all cases, where head ache continues, blistering behind the neck will be requisite. In elderly persons, with tough phlegmatic cough, cold skin, and slow pulse, thirty drops of volatile alkali may be taken in a pint of bran tea, (after soaking the feet) to promote perspiration. The gum ammoniac mixture will be proper in such cases, and in all protracted cases of any kind, or age, it is one of the very best medicines for old coughs. In habitual cough, (not consumptive) twenty drops of Turlington's balsam, on sugar, may be used three or four times a day. A hoarseness may be treated with the following prescription: take a lump of loaf sugar, as large as a walnut; of spermaceti, the size of a chesnut; beat them very well together, and then mix as much finely powdered alum as will cover the sixteenth of a dollar coin; (say eight to ten grains) a pinch of this powder is now and then to be put on the tongue. The throat must be tied up with flannel, and rubbed with a strong linament of hartshorn and oil. In chronic hoarsenesses some soft pieces of good Peruvian bark may be used to chew; and the throat tied up with flannel. It would always be a good way to put a blister on the throat, when the tonsils are much inflamed by cold, as it prevents subsequent

hoarseness, enlargements, and suppurations, as well as shortens the disease.

The French apothecaries keep a kind of lambative cakes, made of starch, gum arabic, and sugar, of the consistence of stiff wheat dough, which may be used for small coughs of long continuance, when sugar candy is loathed. Oily mixtures, are in general too appalling to the stomach, though they suit any stage of cold, and should be used when they can be taken. They may be made by mixing half an ounce of oil of almond, or sweet oil, with the yolk of an egg, and some loaf sugar; and then adding twenty grains of soda to it; which if well beaten up with the other ingredients in a mortar, will mix with water. Those who can take these emulsions will find them very soothing to irritating coughs, and may use the above quantity daily, making an eight ounce mixture of it. Those who have no prejudice against taking soap, may use three or four pills of clean castile soap every four hours, in a tough old cough; it may be had where other articles are not to be gotten.

INFLUENZA.

The causes of this disease are rather obscure. They seem to be some very general changes in the components of the atmosphere, produced more rapidly than usual; so that the system cannot accommodate itself to them. It therefore, bears a great resemblance to those catarrhal affections produced by a rapid voyage from the West Indies, to our northern continent, in spring or fall.


SYMPTOMS.—These are mostly the same as in common cold; but in some cases very different: thus the last influenza, of Baltimore county, had a commencement in some cases with violent vomiting, which was accompanied with high fever, and catarrhal affections of the lungs, throat, and sneiderian membrane of the nose. And, though, so violent and sudden, it departed in three or four days; provided the patient had sound

lungs. In other cases violent stitches of the side, attended; mostly in the muscles. In some seasons there are frequently found typhoid cases.

The universality of the complaint is the criterion to judge by.

MANAGEMENT.—The patient should confine himself to the house; and if bad, to the bed. His drinks should be watery and mucillagenous: such as barley water and bran tea. Very little nourishment will be requisite; a little panada, egg tea or gruel, (see the apothecarium) may be used.

CURE.—There are few cases that will not be greatly relieved, and shortened, by taking fifteen or twenty grains of ipecacuana; provided there is not a spontaneous puking. Purges of salts, and Sedlitz's powders, are always necessary. When the patient is very full and plethoric, it will be expedient to take some blood, and in all cases where the lungs are weak, it will be necessary to bleed and blister after puking. When the pulse is feeble, emetics with very gentle aperients are to be used; and blisters laid on the breast. And finally tonics of vitriol, snake root, and bark, taken. Should a fever of any note, as to strength of pulse, continue after the evacuations, some fever powders made with neutral salts, as No. 2 or 3 may be used. Sweating is particularly necessary where there are severe muscular stitches in the side. It is a great scourge to asthmatic and consumptive patients; and such should take great care when the influenza is epidemic not to expose themselves so as to add a strong necessary cause; and also to give the disease the earliest and most serious attention.

 A little purge of calomel will sometimes be of great use when there is a bilious appearance; and in the after part of all cases the cough may be treated with a dose, or two, of equal parts of syrup of squills and paregoric at night; say one to two teaspoonsful.

ANGINA PECTORIS.

This is a disease of some obscurity as to its original

cause. Dissections have shown some of the more immediate derangements, which are either the cause, or effects, of the disease; viz. ossification of the coronary arteries of the heart, (which are the vessels destined for the heart's peculiar œconomy); ossification of the cartilages of the ribs, scaly ossification within the large blood vessels, where they issue from the heart; great quantities of soft fat in the adipose membrane of these parts; effusions in the pericardium and bags of the pleura. The persons most subject to it, are men of a large and gross habit of body; or men of an inflammatory, tuberculous, rough skin. Women have had it; and some men of ordinary appearance. Taking all things into consideration, viz. the advance in age, the habits of most of the patients, the deposite of bony matter, the inflammatory, or phlethoric state of the blood vessels, the dyspeptic state of the stomach, the debility of the muscles; and that those people use the very means to produce gout, viz. over eating, and little exercise, and are in general the very habit (viz. gross males) that gout assails; and, moreover, that gout diminishes in our country; there are strong reasons for believing that they are very strictly allied in cause, and of course and in prevention.

We, moreover, see gout frequently either from a hereditary taint, or from some unusual state of the parts concerned, attacking persons of a very different appearance, and way of living; so that no objections can be made to a similar anomaly.

And no doubt, as in gout, the imperfect bony deposit, (valgochalk) is sometimes absent; so we may expect it in angina pectoris. And probably these are the only cases where the disease is curable. Notwithstanding this similarity between gout and angina here offered for consideration, certain eminent physicians have called it syncope; others, asthma; and some have considered it as a cramp cholic. An excitement of any of the diseased organs brings on a paroxysm, or fit of it. If the muscles of the legs and feet are used a little briskly in walking; if the stomach

is disturbed by indigestibles, or a full meal; or if the passions are excited, or the nerves affected; the disease is aroused; and all those sets of diseased organs instantly associate in disorder: palpitation, pain in the breast, (extending upwards, and over the arms, most commonly the left) as far as the insertion of the deltoid muscle,* and an arrest of nearly all the animal motions, threatening instant death, ensue. The patient stops short, is bathed in sweat, and his stomach pours off volumes of wind, whilst he trembles to the centre. In fine he looks like death itself. A sensation, or noise, something like when a clock is going to strike, is perceived in some patients about the heart, and they then begin to recover. His nerves remain much agitated by the frequent attacks; and though the fits, at first, go off so quickly: merely by the patient stopping, or turning from the wind; yet they are likely to increase in the length of the paroxysm, so as to require some immediate medical aid. A sudden death is generally the end. The lungs seem to form no primary league with the disordered parts, though they suffer in the general struggle of the paroxysm; there are many instances of public speakers, holding forth, for an hour or more, without exciting any disease, though subject to angina. The pulse generally fails, a good deal, during the fit. It is a very singular circumstance, that merely walking a little briskly should excite a paroxysm, for it cannot be by hurrying the circulation; since both lawyers and preachers (as before stated) speak for hours with impunity. It would therefore appear, that the sympathy exhibited in certain disorders of the stomach on the legs, by a cramp, are here returned back on the stomach, from the legs.

CURE.—When the patient is plethoric, bleeding should be used, pretty freely; and a new mode of life commenced: abstinence even to thinness, poor diet, watery drinks, should be adopted, with moderate labour, or action, in any way that the complaint will allow;

* This point is about one span from the top of the shoulder down the arm.

by riding, working, &c. After a reductions is accomplished, gentle tonics, such as camomile, and preparations of bark, and of steel, may be used.* During a fit, some ether and laudanum will relieve the stomach, and stop the paroxysm. All sudden motions of body, and emotions of mind, or great perspirations are to be avoided, and the mind kept calm. It is a lamentable thing to find disease so generally planted in the system, in four great organs: blood vessels, muscles, stomach, and nerves; and those who have it must use adequate means of relief. It is owing to a neglect of what is practicable, that so many die; for there can be no doubt when ossification has not taken place, but what the other affections may be eradicated. A man that will eat, and drink freely, and idle, with this disease may be said to eat himself up; and no doubt many would literally do so, if it could be done with pleasure instead of pain.

DROPSY.

Is a collection of serous or watery fluids in the cavities of the body; or in the whole or part of certain organs. In these last cases a sac, for the waters seems to be made by force. These collections are owing to the secretion overballancing the absorption; so that it would appear as if dropsy might arise from excess of secretion, or a defect of absorption; the latter was the notion of the ancients, and the former is the theory of the moderns. Perhaps there are cases of both kinds; as also defects in both sets of vessels, in most cases.

CAUSES.—An immense variety of obstructions and malformations, are enumerated by authors, among the causes; and they have attempted to classify them, both in place, and in their association with the species of this disease. Dr. Gregory has given the following list:—*In the thorax*, enlargement of the heart, diseased valves of the heart, adhesion of the pericardium, ossification of the great arteries, inflammation of the internal

* The tincture of flakes of iron will be one of the best preparations. Twenty drops of laudanum and a small teaspoonful of ether may be mixed with a little brandy, for a dose.

coat of said arteries, aneurism of the aorta, tubercles of the lungs, vomica, induration of the lungs, malformation of the chest, inflammation of the membrane of the lungs. *In the abdomen*, inflammation of the peritoneum, adhesion, thickening, tuberculated state, and accretion of the same. Swelled liver and spleen, diseased mesenteric glands, scirrhus stomach, tumours attached to the omentum, and thickened and ulcerated intestines. The doctor thinks that the former set in the thorax, give rise to hydrothorax, dropsy of the pericardium and anasarca; and the latter (*viz.* those in the abdomen) to ascites, or ascites and anasarca combined. These dropsies, from causes in the abdomen, are said to prevail as three to one oftener than the former.

But the whole of the above are only a part of the causes assigned; and we shall add from Dr. Thomas the following:—"hereditary disposition, frequent salivations, long continued evacuations, a free use of spirituous liquors, preceding diseases: as jaundice, diarrhea, dysentery, phthisis, asthma, gout, intermittents of long standing, some eruptive fevers, suppressed evacuations, rupture of the thoracic duct; also exposure for a length of time to a moist atmosphere, laxity of the exhalents, debility of the absorbents, topical weakness, general debility." To these we might add common colds neglected, hæmorrhages, poisons, and the sudden stopping of a violent purging by astringents. Though these lists of causes are not compleat, they may be sufficient; as they are seldom, if ever, left alone to produce dropsy. They are known to exist without dropsy; and many of them remain when dropsy is cured. Every obstruction can only be considered, in a large portion of cases, as a favouring cause. Disease that has previously existed, may lay the foundation either by debility, or by leaving a local disease.

All the internal cavities of the human body, and all internal surfaces are lubricated by means of exhalents; and the humours again absorbed by another set of vessels. In dropsy there is every proof that this regular distribution is interrupted, or prevented, and that

whilst there is an excess of water thrown out on some parts, there is a deficiency in others: the symptoms of dropsy prove this. There is no certainty, however, that the foundation, or real location, of the disease, is in the part that shows the collection; for water will seek the most dependent part, when there is a way open: thus the legs often show the first marks of dropsy.

The remote causes of dropsy, (especially those from excess and quality of ingesta) that produce organic obstructions, in parts prone to such disease, will, if continued, produce other local affections in parts of a different construction: *e. g.* relaxations in the exhalents and absorbents: so that more being forced out, and less taken up, collections necessarily form; and thus a second set of proximate causes are added to the obstructions. But it will rarely happen, in an extensive dropsy, that disease will be formed without the addition of a third set of proximate causes. Thus, when cold is applied in a morbid degree to the abdomen, constrictions will be formed on the exhalents of the peritoneum, and on the surfaces of the primæ viæ; and also on parts that are intimately connected with them by sympathy: such as the kidneys.* The relaxed vessels that have not suffered this constriction are doubly forced: for we must suppose the aqueous material to be still the same in quantity; and if retained at one place, will be poured out more abundantly at another. Whether there ever is an universal constriction of these vessels over the whole system, and what disorder would be formed by such a morbid state, the author is not prepared to say.

The sensation of thirst appears to be regulated by the secretions on the surface of the primæ viæ; and the draught in dropsy is probably from the absence of such secretion. The paucity of urine in dropsy must also depend on constrictions of the kidneys, and not


* This sympathy is very notable, and has different effects, merely from degree: thus, in common chills, though more urine is passed, it is clear and filtered; a farther constriction would lessen the urine.

on an absence of the aqueous material. A practitioner will not venture to say that he gives a diurectic to create such discharge, or the material that forms it.

The aforementioned three proximate causes of dropsy are not always necessary to produce the disease; neither is it necessary for them to be in any one state of arrangement, or succession; for either may take the lead, and one or two be absent; and yet the disease ensue. But with the intemperate patient, all of them in the aforementioned succession make the more common process.

If the collections in dropsy were removed, the disease would still exist, as long as the proximate causes existed. And if the cure of dropsy depended merely on evacuating the collected waters, incisions would be far preferable to the medicines we give to restore the equilibrium, or remove the constriction; but experience proves the reverse.

SYMPTOMS (in general.)—Dr. Gregory makes the following short summary of what he terms the hydropic disposition:—"diminished secretion of urine, œdema of the feet and ankles; and a peculiar expression of countenance; to which the term *leucophlegmatic* has been applied."

 The details under each species will fill up the particulars.

CURE (in general.)—All remote causes, at the will of the patient, must be removed. The drinker must refrain; and the eater restrain his appetite. All diseases that have facilitated the forming of dropsy, must be removed when practicable. Admitting the three aforementioned set of causes, the indications of cure will be: to reduce the arterial force occasioned by the excess, and the curtailing the circulation (by obstructions;)* to restore the equilibrium in the exhalents; and lastly, to brace up the relaxed vessels, both exhalents and absorbents.

The arterial force may be reduced by the usual

* A tight string around the finger will give a good idea of what an obstruction will effect on the arterial system.

means: viz. abstinence, or thin diet, repeated bleeding, purging with neutral salts, antimonial and nitrous medicines, and by foxglove.

The equilibrium may be restored by emetics, sudorifics, alteratives,* purgatives, diurectics, and by mercury.

The relaxed vessels may be toned by acids, bitters, preparations of steel, bark, mineral waters, and travelling.

Some of the above remedies will have more than a simple effect: such as bleeding and purging.

In applying the remedies, much judgment is needful; and this may be assisted by taking into consideration the habit of the patient, the causes, and the length of the time the disease has existed; by considering how far any one set of the three proximate causes are to blame; whether all, or part of them, have existed.

The long application of any one set of remedies must depend on the obstinacy of that set of causes to which they are applicable. To prescribe for the mere name of dropsy, without such considerations, is arrant quackery.

The more local a dropsy, and unimportant to the system, the part affected, the better will be the general complexion of health; and of course, so much the better will be the subject for active operations.

There is a great variety in dropsy, from the variety of parts into which the water is thrown out, or collected; as also from the extent of the surface from whence it exudes. When water is diffused through the cellular membrane, it is called *anasarca*, be it general, or local. When it is deposited in the thorax, it is called *hydrothorax*. The author has placed this as the first species; and being unwilling to separate species, has treated them under one head, (viz. disease of the chest.) When water is deposited in the cavities of the abdomen, it is called *ascites*. When in the

* Medicines that would puke, if given in large doses, are alteratives in small doses. Neutral salts, in divided doses, and mercury slowly administered, are also termed alteratives.

scrotum, *hydrocele*. When in the ovarium, *ascites of the ovarium*.

GENERAL MANAGEMENT.—In all dropsies there is great need of attention to diet. In the inflammatory stages, a thin spare vegetable diet must be used; but not so low as to induce dyspepsia. Drinks of lemonade, cream of tartar and water, will be proper. As this stage recedes, cider and water, and diluted porter, may be used. For cases of debility, the diet may be small; mostly of animal, and nourishing, with mush and milk, or rice, in preference to common vegetables. Tea, coffee, and chocolate, are also good diet and drink. In a very decided case of debility, port wine and water may be constantly used; and gin toddy, when cholicky, or dyspeptic. The dress and weather must be well attended to; flannels are indispensable. Riding or sailing, when convalescent, will greatly contribute to a perfect restoration.

HYDROTHORAX.

This is more frequently found in young subjects than either ascites, or anasarca. It is also an attendant on advanced age.

SYMPTOMS.—The water rolls in the chest to the perception of the patient; and may often be felt by an examiner laying his hand on one side, and giving a tap on the other; or by the mere sudden motion of the patient. The noise made in the chest on turning in bed, and the oppression on the stomach in laying; a short breath, cough, palpitation and irregular pulse; dreaming and starting in the sleep, will leave no doubt. Sometimes an examiner can feel on the left side a kind of rolling motion of the heart; but this may be a symptom of a dropsy in the pericardium, which will not require any other means; and may be considered as a variety of the same disease. Swellings in the extremities are also very sure symptoms. The lips are somewhat blue, and mottled by the difficulty of respiration; and this may be increased to a suffocation, by pressing the abdomen.

CAUSES.—It has been so often found in certain families, as to be called hereditary; and there is no doubt of the fact. Young women, from eleven to fourteen, are more subject to it; when so, (*viz.* hereditary) than either children or other ages. In grown persons, repeated colds, noxious fumes from chemicals, hard drinking, anxiety, and grief, are common causes. There are cases also, that appear to be a metastasis of rheumatism, gout, or a change with asthma. The water is not always loose; it may be in hydatids; in the cellular membrane; and it may be only in one cavity of the lungs.

CURE.—Bleeding, purging, and the use of diuretics; as for other dropsies, hereafter mentioned, must be used. Bleeding in the early stage, and blistering in all cases, are useful. Issues also are proper. Foxglove may here be fairly tried, after bleeding. When all the symptoms of inflammation, that would throw out water, are fairly removed, a gentle salivation may be tried; and then if any relief is obtained, a regular set of tonics: such as are mentioned (page 176) for general use, may be given. When the disease has advanced, and spasms are violent: ether in small doses, combined with laudanum, may be used. Diuretics, mercury, and squills, have been supposed more efficient in this, than in any other species of dropsy; and emetics not so practicable. There are many cases, no doubt, that will get on to a degree of debility, that it may be imprudent to bleed; but there are a great many advanced cases, where no objection can be made to prudent bleeding, in this species more than in any other. The author has bled elderly subjects, not only without any inconvenience to them, when far advanced in disease, but with singular relief. Small bleedings from the lungs often take place in the advanced state of it. Death is sometimes sudden. Coma, apoplexy, asphixia, and suffocation, end the disease.

ASCITES, OR DROPSY OF THE BELLY.

This is known by symptoms common to most drop-

sies: as draught, costiveness, deficient urine, paleness; as also by a regular swelling of the belly. A cough is very common; sluggishness, dryness of the skin, and oppression, with a distressed look, as if oppressed, are symptoms throughout.


The quantity of water in the abdomen, sometimes, is enormous. Hydatids are common, in which tapping gives no relief.*

CURE.—This is conducted on the general principles laid down: reducing all activity that may be found in the pulse, and all plethora remaining in the system: by bleeding and purging, by emetics and neutral salts, and particular articles acting on the pulse and kidneys. And when the system is brought to a stand by the recovery of its lost actions, and the reduction of the waters, tonics must be used. Emetics will be a good article in a dubious case; as also frictions with warm oil, and the blue pill; which may be used for ten or fifteen days, and then omitted for an equal time, and used again. The above remedies are for what may be termed sthenic dropsy, or for dubious cases also; and where the causes are such as have been enumerated in the general account of dropsy, as producing an inflammatory state of the system; particularly of the exhalents. But this state after a while will end in debility, and yet the dropsy continue, and we shall find a numerous set of cases, where debility was at hand at the very beginning of the disease, produced by a long course of intemperate living; or from previous disease. It will, therefore, often fall to the lot of the physician to be called in when this debilitated state has possession of the patient.

But it may so happen that the personal appearance, and the pulse, will not always give the necessary information of the state; therefore some other means must be resorted to, for to make sure that we are not doing mischief in prescribing. The sthenic cases are sometimes marked with a roughness of the skin, mil-

* Hydatids may be distinguished by the unequal resistance to the hand on pressure.

liary eruptions, and hæmorrhages. But if Dr. Blackall is right, there is an easy test. He says, that the urine will always coadjuate by heat, or the addition of the mineral acids, if sthenic; and that no change will ensue in cases of debility. In cases of debility, we must use an emetic or two, and tone up the system by tincture of flakes of iron, decoction of bark, bitters of a strong kind: as *augustura* and ginger, in some gin. A diet of a nourishing kind must be used, and some port wine; with these the more stimulating diurectics may be daily used; and the ærated mineral waters, and chalybeate springs. Tapping is requisite when the water is oppressive by its quantity.

 If the bowels are slow, some of the salt of steel, with *guaiacum*, or *aloes*, may be given, but not to purge: say three grains of salt of steel, and ten grains of *guaiacum*.

Some physicians think the foxglove most applicable to a state of debility.

ANASARCA,

Is a species of external dropsy, in which the swelling is generally perceived about the ankles at night, and then extends up the limbs, even to the face. These swellings leave a pit when pressed. The skin becomes dry and parched; the countenance sallow; a drowsiness attends, and all the other symptoms (except the peculiar swellings,) attendant on other species of dropsy, are present. Where the water is first poured out it is impossible to tell, for it seems at first to take its stationary place on mere hydraulic principles, settling by gravitation. The pulse is generally firm and hard. Mere local pressure, as in pregnancy, will sometimes induce it; but in general, it has causes in common with other dropsies.

THE MANAGEMENT AND CURE, scarcely differs from ascites, except that some bandaging may be advantageous, and there may be incisions (as large as the orifice in bleeding) made below the knees, to prevent bursting and ulceration.

All that is said in ascites respecting the two states: viz. sthenic, and state of debility; and the remedies are here applicable in the same way, and so of the diet.

DROPSY OF THE OVARIUM.

There are a great many enlargements of this organ, besides those from water: such as fatty, grisly, &c., the water is not so pure as in other dropsies, and is often discoloured, and appears on inspection of a ruddy chocolate hue.

SYMPTOMS.—An unequal enlargement and weight on one side of the abdomen. As the organ enlarges it produces much uneasiness, from weight and pressure; but excepting those circumstances, does not affect the general health of the system; though it will proceed very rapidly at times, yet at others it remains many years. When very large it may have all the necessity of tapping that ascites requires; yielding at times the same quantity of water. It must be tapped on the side from which it originated.

CAUSES.—These are rather obscure: falls and blows, irregular catamenia, and other irregularities, seem to be the source. Perhaps a sedentary life, and obesity, are sometimes the cause.

CURE.—This is hardly to be expected; yet some bold surgeons have extirpated an ovary. One of our navy surgeons, by applying a tobacco plaster, had the good luck to produce a discharge of the waters by the vagina. But, no doubt, that great attention to the bowels, a slender diet, enemata of cold water, a quiet mind, and proper dress, to avoid all colds, would retard the disease considerably.

A List of Diuretics, Purges, and Alteratives, used for Dropsies.

Antiphlogistic Recipes.

In using diuretics it is necessary for the patient to keep about the floor, and not to lay down more than necessity requires; moreover, they should not be used in inflammatory cases till the pulse has been reduced by bleeding and purging.

DIURETICS.—Cream of tartar dissolved in water, and drank through the day, to the amount of half an ounce, or more, per day.

Ærated artificial waters, without or with alkali. In the latter case, fifteen grains of alkali may be used in ten ounces of ærated water; and taken three or four times in the day.

Nitre, in doses of ten to fifteen grains, four times a day, in lemonade. It should be changed after four days, for some other diuretics not saline.

Ærated potash: doses of twenty grains may be taken in lemonade, or weak cider, three times a day; or ten grains in two ounces of water.

Recipes of a middle grade.

Extract of cahinea: a patent medicine, with directions by Mr. Parmentier, of Paris. Sold at the large cities: Baltimore, Philadelphia, &c.

Seneca tea, made with half an ounce to the pint of water. A wine glass full is a dose, using it so as to consume the whole in the day; adding twenty drops of spirit of nitre dulcis to each dose.

A tea made with a handful of juniper berries, and a wine glass full of melon seed to the pint. One large wine glass full every two hours.

Ten drops of saturated tincture of foxglove, in juniper tea, three times a day.

Re. cream of tartar, one and a half ounces; sulphate of potash, one ounce; powdered squills, two drachms; tartar emetic, two grains; mix thoroughly after grinding, and take one teaspoonful, in syrup, four times a day. This has been highly recommended, by some medical gentlemen, as a good diuretic.

Re. volatile tincture of copper:* from ten to twenty drops, in a very little syrup and water, four times a day; beginning with the smallest dose twice a day.

Re. spirit of turpentine; from fifteen to twenty-five drops, may be used three times a day, taken in a teaspoonful of syrup of squills; washed down with a little gin toddy.

Re. horseradish, mustard seed, juniper berries, cream of tartar, each half an ounce. Make one quart of strong tea, to be taken by the wine glass, so as to use the above in two days.

Re. horseradish, one ounce; ginger, one ounce; hard cider, one quart; let it draw well for a few days. A wine glass full every two hours, more or less, so as to consume it in twenty-four hours.

Re. horseradish, one ounce; boiling water, one quart; ærated potash, three drachms; make an infusion. To be taken by the wine glass full, every hour or two.

Re. tincture of Spanish flies, twenty drops; spirit of nitre dulcified, thirty drops; to be taken in watermelon seed tea, two or three times a day; but not so as to produce strangury. If it does, desist, and use a little camphor, dissolved in milk: say five grains to a cup; and drink mucillages.

PURGES FOR DROPSY.

Glauber or Epsom salts, in doses of one ounce to one and a half ounces: if more is requisite to purge, rather add half a grain of tartar emetic to each ounce.

Re. jalap and cream of tartar. See the apothecarium.

Re. jalap and calomel. See the apothecarium.

Re. jalap, eighteen grains; nitre, ten grains; mix and take in syrup of ginger.

Re. jalap, ten grains; blue vitriol, two grains; to be

* Volatile tincture of copper is made by putting five grains of the filings of a cent, or piece of copper, into one ounce of spirit of hartshorn (aqua ammonia.) It has done great things in some dropsies, making a perfect cure.

taken twice in four hours; in syrup of ginger this is very powerful.

Re. cream of tartar, twenty-five grains; gambouge and calomel, each three grains: grind the gambouge with the cream of tartar first. To be taken in syrup.

Re. gambouge, forty grains; soluble tartar, one ounce; sugar, two drachms; water, eight ounces; to be dissolved by trituration in a mortar: one table spoonful every three hours. Recommended by Dr. Dewees.

Re. senna and cream of tartar. See the apothecarium.

Re. elaterium, from a quarter to half a grain; rub it fine and well, with some loaf sugar, and add ten grains of jalap. Take it in syrup of ginger. Begin with smaller doses, and increase slowly.* It is powerful, and one of the most effectual.

From the above large assortment, there may be a choice to suit the nature of the disease: whether from inflammation, or debility, as also to suit the palate; and, moreover, to change about, which may often be of great benefit.

Alteratives, i. e. medicines that reduce the actions without perceptible evacuations. They are few: viz. mercury, antimony, squills, and salines, and their combinations.


Re. blue pills, three grains; powder of digitalis, one grain; of squills, one grain, mix; to be taken four times a day.—Dr. Gregory.

Re. powdered squills, three grains; calomel, one grain; to be taken three times a day: four days, and then desist.

Re. powdered squills, five grains; nitre, ten grains; about twice a day, so as to nauseate.

Re. oxymel squills, one ounce; tartarized antimony, one to two grains; water, half an ounce; a teaspoonful of this may be used every two hours, or oftener.—These alteratives are said to be particularly suitable to dropsy of the chest.

* Perhaps one and a half grains is the most that ever should be used for a dose.

 Dr. Whethering and Dr. Thomas think that foxglove suits best in dropsies of a low tone; but yet where there is some soundness of constitution.

PALPITATION OF THE HEART.

Palpitation is a perceptible effort of the heart, made to disburthen itself from an irregular transmission of the blood.

SYMPTOMS.—The actions of the heart are sometimes soft and rolling; sometimes fluttering; sometimes acute; and again, they will be found powerful and thumping; or very feeble. They will be transitory, or permanent, in the course of the day, and last from a day to years.

The patient is put into very disagreeable feelings of body and mind, with oppression or dyspnœa; and sometimes the colour of the lips are blueish, or stagnant. The pulse varies as much as the heart; but does not always accord with the exertions of that organ. It will be hard and regular, in some gouty and phlethoric cases; and assume many varieties, according to the causes. Læ nec mentions cases where the pulse beat from 160 to 180 in a minute, and was very feeble.

CAUSES.—First, obstructions in and about the heart, or large blood-vessels near to it; proceeding from a great variety of causes: viz. ossification of the valves and vessels; fatty, lymphatic, and polypous formations; adhesions from the remains of inflammation; contractions; dropsical collections in the chest, or pericardium; malformations of the chest, &c.

Second, plethora, or over fulness of blood, gouty diathesis, dilations of the cavities of the heart, and excessive exertions.

Third, diseases of other parts; either extending their sympathies to the heart, or producing an irregular circulation: as dyspepsia, constipation, and hepatic obstruction.—Dr. Gregory. Rheumatism, (Dr. Baile)* hypochondriasis, chlorosis, and hysteria.

* The only cases of rheumatism making a metastasis to the heart, known to the author, were so acute that immediate relief became ne-

Fourth, peculiar irritability of the heart, or of the whole system; manifested in a variable temper of mind, subject to fear, despondency, anger, or exstacy.

Fifth, inanition, and pure debility; from loss of blood, diarrhea, starvation, and exhaustion of every sort.

CURE.—In those cases of organic obstruction, nothing but a palliation can take place; for there is no cure. And so of the enlargement of the cavity of the heart; however, by rest, a quiet mind, temperate diet and drink, avoiding exertions, the disease may be moderated, and life protracted. This plan may be applied to all cases. If the patients are full, some blood may be drawn. In cases of plethora, gouty, and rheumatic habits; bleeding and purging, with low diet, will generally relieve, when applied early in the disease. When it proceeds from other diseases: such must be cured by the means recommended in this book.

In those cases of exquisite sensibility, not only rest must be attended to, but a firm resolution made to oppose great emotions of mind; and to avoid their exciting causes. Tonics will be very useful: such as steel and bark; and Dr. Thomas recommends the cold bath also. The bowels should be well attended to, and the dress made comfortable, and suited to the season. A nourishing diet will be necessary in exhaustions. Many cases in youth will last long, and be cured perfectly at last, by attending to the above directions. From fifteen to twenty-five, or thirty, is generally the age most subject to those cases, whilst a more advanced age is liable to the structural changes of the heart and blood-vessels. In the hysterical cases, when such habit is fixed, and cannot be cured, the use of lavender, ether, musk, castor, valerian, and assafœtida, will often be useful.

cessary; and it is difficult to conceive how such disease could be endured so as to enlarge the heart; but Dr. Baillie has Dr. Pitcairn to support him

DISEASES OF THE MUSCLES.

CHAPTER VI.

ACUTE RHEUMATISM.

THIS disease attacks at all seasons; but more rarely in summer. When there are rapid changes of weather, from warm to cold; and especially if damp, we may expect rheumatism. Persons from twelve to forty, are most subject to this species.

CAUSES.—Cold and wet applied to the body when heated, or an exposure to a current of air; too thin clothing, (day or night,) partial exposures; as the cool damp of cellar floors to the feet, sitting near a broken pane of glass, riding briskly against the wind, and reading in an airy passage. Young people, by imprudently bathing, (i. e. when the body is made warm by fast walking, or playing,) frequently contract the worst cases of acute rheumatism.

SYMPTOMS.—After a chill, a pain affects the great joints of the limbs; at other times some of the muscles of the shoulder blade, or the breast, head, and neck, are the seat of disease. In the former location, the joints swell, and become more or less red; and the local symptoms often shift about: the inflammation in the elbows, or wrists, will change to a similar affection of the knees, or ancles; relieving the upper joints entirely.

This disposition to change of place is noticed, even in the more serious affections. Rheumatism of the head, with fever, (and of other parts also) will sometimes make a total departure from the more external muscles and fix on the heart, depressing the pulse; and in some cases where the rheumatic fever is of an in-

termittent form, the change will be made to the stomach, with oppression like gout in this organ.* The rheumatic fever increases at night; but the pulse is not so rapid as in most pure fevers. Unless proper antiphlogistic remedies are used in time, the limbs will be seriously injured; the affection become chronic, and sometimes the mind weakened.

This disease, when chronic, seems to be a connecting link between genuine and spurious disease.


MANAGEMENT.—The diet should be altogether vegetable, so long as the fever and inflammation last; the drinks, teas, and toast water. The room should be very temperate, so as to be barely pleasant to the attendants. It is often difficult to adjust the bed clothes to suit rheumatics: when sufficiently warm, it is too heavy; and when cool enough to the patient, too thin; and an inadequate defence from the external air. The author is indebted to an old rheumatic friend of his for a remedy so difficult: a pair of half worn sheets are to be quilted with a layer of cotton between them. Thus a good defence, without weight, is obtained; in all cases of rheumatism this may be used in part.—Great attention must be paid to the weather, and to the bowels, when recovered from rheumatism. Without flannels and thick shoes early in the fall, an attack will be certain.

CURE.—The patient should be bled freely, three or four times, if the disease is violent; though in minor cases one bleeding will do. By bleeding every other day, it will be known how often the operation is needed. In the meantime purgatives must be given: jalap and nitre, say twenty grains of each, will be a good purge, to be given the same day the blood is drawn. In the intermediate days, sweating must be tried, with the fever powders, No. 1. After the reductions as above, we may make an attempt with the colchicum, so strongly recommended by Dr. Gregory. Thirty drops of the wine of colchicum may be given every six hours,

* In either kind, viz. of the heart or stomach the low pulse must not prevent bleeding or purging.

for a few times. It had best be given with some other purgative. A drachm of senna leaves may be drawn with four ounces of water, and half, or one-third, of this, given with each dose of colchicum. Should the febrile symptoms keep up, after all these reductions, recourse must be had to Dover's powders; given three times, or four times, in twelve hours.* When by such means, the fever is pretty well reduced, and the local inflammations continue, there is reason to believe that these latter alone, are then the source of the pulse continuing in any degree more than natural; and we should change our practice, and attack the visible local disease. There is nothing so effectual as very strong lead water: half an ounce of sugar of lead must be dissolved in a porter bottle, of equal parts of vinegar and water, which is to be applied to the parts every two or three hours. If the weather is not very cold, rags should be kept constantly wet with it, and laid on the inflamed parts. The author has repeatedly tested this prescription with a success beyond expectation. Embrocations of tepid sweet oil are also used; and thick solutions of soap; but these seem rather to drive the inflammation from joint to joint; whereas the lead destroys it, and the remains of fever cease. Great good has sometimes followed the use of zinc and cuprum amoniacum, given every four hours, in similar states, *i. e.* where the local inflammation continued to keep up the fever.

It will be necessary in the free use of nitre and salines to take care not to extend them so as to produce a flatulence of the stomach, which would render the stomach incapable of taking such other medicines as are needed.

 One grain of cuprum amoniacum, and one of zinc, may be made into a pill, and given three times a day, or oftener, as the stomach will bear it.

* See the new formula, in the apothecarium.

CHRONIC RHEUMATISM.

This is generally the companion of advanced age, or the remains of inflammatory rheumatism neglected. Warmth is comfortable to the pains in this species; and though the joints may swell, they do not inflame. There is little or no fever. Persons subject to chronic rheumatism are perfect barometers: often feeling a cloud before seeing it; and, like Darwin's sensitive plant, "tremble at the moving shade."

MANAGEMENT.—The limbs are to be perfectly protected by flannels, and layers of carded cotton applied to the pained joints. The drink and diet may be as in health. A stove heat in winter, continued through the night, will give great relief.


CURE.—The bowels are here to be kept extremely regular by medicine; for no person can expect any relief in rheumatism without free bowels. But saline medicines are not proper. A teaspoonful of guaiacum, in fine powder, mixed with two grains of gambouge, or with two grains of blue vitriol, and some syrup of ginger, is one of the best purges. Jalap and magnesia, or jalap and calomel, may also be used.

Applications to the surface is here more depended on than in acute rheumatism. Friction is very necessary, and motion of the limbs to help them from suffering. Embrocations of all stimulating articles are used: such as spirit of turpentine, with sweet oil, from one-tenth to one-fifth of the former: some camphor may be mixed to improve the flavour. Tincture of red pepper is much used. A good liniment may be made by rubbing half a drachm, to a drachm, of carbonate of ammonia very fine, and then levigating it with thirty drops of oil of sassafras; after which it may be incorporated with one ounce of stiff lard, or simple cerate, and kept in a tin box: a portion of this may be applied to the pained parts, morning and night, or oftener.

The internal remedies consist of the following articles: viz. mercury; a salivation has often cured it.

Warm decoctions of a compound drink, made with sarsaparilla, lignumvitæ, and sassafras, used in large quantities. Scalded mustard seed is a popular remedy, taking a large spoonful three or four times a day. Also turpentine pills, or spirit of turpentine; this last may be taken in doses of fifteen to thirty drops, in milk, three times a day. Horseradish is also used, and a spirituous tincture of the prickly ash,* (zanthoxylum fraxinifolium.) Besides those means, a warm steam bath is recommended; and the warm springs of Virginia are frequently used with great success. A perpetual blister has been used; and when the disease is very much confined to one part, it may have a great effect; more especially in the more full and corpulent, or young patients. Opiates, in form of Dover's powder, is often necessary to give rest. Where there is fever, the state of remission is the best time to give opiates; be that day or night, as sleep is good at any time to the weary. But the bowels must be moved after every opiate, if needful.

There are a great many cases of rheumatism that will at first puzzle the practitioner to say, to which species a case belongs; but those that are increased by heat, or stimulating medicines, are sure to be acute. In some of those dubious cases, the dashing of cold water on the parts, brings great relief; and blisters, purging, and sweating, must be used in all such cases. Indeed, there is nothing but a practical distinction between the two rheumatisms: for acute rheumatism will sometimes hurry into chronic. From this circumstance, Dr. Potter, and others, say there is but one rheumatism. Nothing proves this so well as strained ancles, which are (though differing in cause) first, a true *acute* rheumatism, and then become *chronic*, sooner or later; having often an intermediate state also, and then re-

 * Tincture of prickly ash is made by a handful of berries, or as much bark scraped fine, to one quart of spirit. Only a teaspoonful in a glass of water can be used at first; the quantity may be increased as the person can take it, to four times that quantity, three times a day. This most pungent article is the *zanthoxylum fraxinifolium*; and not the *aralia spinosa*, as Drs. Cox and Gregory have it.

fusing both stimulants and sedatives; but yielding to blisters, issues, and rest.

SCIATICA.

This is a rheumatism of the hip. Cupping, or leeching the parts, and purging, will often cure it very expeditiously; if not, ten to twenty drops of spirit of turpentine, in some milk, twice or thrice a day, will be nearly infallible. But if it delays after the above means, a little calomel must be introduced, and then the turpentine used again. Issues, or tartar plasters, are necessary in protracted cases. Where the bedding is not sufficient, and persons have to turn out and work, this disease will sometimes end in what Dr. Cullen calls arthrapousis, *i. e.* a suppuration and fistula of the hip joint, producing hectic and death.

LUMBAGO.

This is a rheumatism of the small of the back; and although fever scarcely ever attends sciatica, it does sometimes attend lumbago. It has been found in the form of an intermittent fever, in bilious countries; and after purging with calomel, needs bark in the intermissions. Embrocations and strengthening plasters are to be used, after opening the bowels with oil, or calomel and jalap. Leeches may sometimes be requisite; but repeated purging is the main thing. All the stimulating external applications may (after purging and leeching) be used that are recommended for chronic rheumatism. Flannels and warmth are necessary, in both this and sciatica, for that they appear to partake of the nature of both acute and chronic rheumatism.

In those important cases where inflammatory rheumatism leaves the head, and fixes on the heart, we must bleed and blister, be the pulse what it may. It is generally slow; and in those cases where it fixes on the stomach, we must purge briskly, and as soon as an operation is produced, use a little ether: say, twenty-

five drops, in a cup of toddy, every half hour; and apply first a sinapism, and then a blister, over the stomach, till that organ is relieved: using for some time the most mild and moderate diet and drinks: such as rice and mush, milk and water; for the digestion will be completely overthrown.

INTERCOSTAL RHEUMATISM

This complaint is most prevalent when the changes of weather are frequent: as in spring and fall; but it has been seen in summer, and is occasionally an epidemic of small extent. It rather attacks the delicate than the robust: females are the subjects of it as often as men. It is a disease that is much confined to early life, say from fifteen to forty-five.

THE CAUSES are exposure to damp and cold, as in common rheumatism; and when more extended, an epidemic proceeds from long continued rainy, or cloudy weather. Perhaps a gouty habit disposes to it.

SYMPTOMS.—It begins with sharp stitches, and pains about the side and ribs, interrupting the respiration by catches. They are sometimes so severe, as not only to cause the patient to scream out, but to become fainty. A continued fever attends in the cool seasons, but of less degree than in pleurisy. It has been known to attack in the intermittent form, in the summer months; like other rheumatic affections, it is liable to a metastasis, or change of place. It will sometimes fix on the stomach, with all the oppression of gout; with a quick, small pulse. In this state it is severe and alarming. It will then attack the breast, knees, and other muscles, flying about, back to its first place, then again to the stomach; though with less severity, if properly treated. A cough attends in all severe cases; but does not produce as much pain as a pleuritic cough; often no pain at all. This is a very important distinction between it and pleurisy; moreover, no blood is coughed up, nor any phlegm of note, till the disease has lasted some time, when white or

yellow tough mucous will be discharged. The difficulty of breathing, in pleurisy, is of a *deep uniform motion*, and so is the pain; but in this disease there is often no difficulty in breathing, except at the moment of a stitch, and then the breathing is quite interrupted; nor is the pain always constant in intercostal rheumatism. By the above it may readily be distinguished from pleurisy, which is some satisfaction; though the remedies are nearly the same. The febrile symptoms increase at night, and are attended with more or less head ache. It generally shows its rheumatic connections more and more, as it extends or declines, by the attacks on other parts; but these attacks are not a proper metastasis of the disease, like what is before stated. When it is extending, the first pains in the side remain; but when it is declining, they go off to other parts.

MANAGEMENT.—In fall and spring, or winter, it will be well to keep up a moderate warmth in the room. A thin diet of vegetables, and mucillageous drinks, are requisite: such as elm bark tea, with acids, barley water and lime juice, drank warm. Persons subject to this disease must wear flannels.

CURE.—In all cases attended with fever (even if it be an intermittent) bleeding will be necessary: ten or twelve ounces once, or at most twice, will be sufficient. A blister must be laid over the pained part, and an attempt made to sweat the patient by cooling medicines at first; and if they fail, by warmer ones. But from the beginning, free purging must be practised. Take jalap, fifteen grains, nitre, ten grains, calomel, five grains; mix them in molasses, or any preserve. A dose of castor oil may be used as a second purge. The following order of using the remedies will be a guide: on the first day bleed, and give the purge of jalap, &c.; as soon as that has finished its operation, let a blister be put on the side, allowing this to be on all night. The patient may drink, through the night, his mucillagenous warm drinks; having first bathed his feet and legs in warm water. In the morning let him begin with the fever powders, No. 1, and

take them every two hours, through the day. If they pass through the bowels by night, nothing more may be done than to bathe and drink tea, or mucillages, through the night; but if they have not operated that way, let a dose of castor oil be given. Should the fever and pain continue, more blood may be taken; but if much reduced, and the pains less, one of the Dover's powders may be used every two or three hours, for three times. Should these sweat well, there will be only occasion for a little paregoric and antimonial wine, every two hours, to keep up the perspiration. But if the disease is still obstinate, some of Plummer's pills may be used, three times a day, till the mouth begins to feel it. In those oppressions of the stomach noted, the castor oil, with a drachm of spirit of nitre dulcified, or some diluted ether, may be given, every two hours, till an operation is produced. A sinapism must also be laid on the stomach. Some bark in decoction, will be necessary, when much debility has been produced, to brace up the system. After using Dover's powders, some oil, or an aloetic pill, must be given, to prevent constipation.

N. B. If a cough follows the disease, the mixture of syrup of squills and paregoric will subdue it; which should be aided by elm bark tea, &c.

PALSY.

This disease may invade the system from three distinct and more general sources, independently of various local causes, violence and debility.

First, from cerebral affections, or those connected with the brain, and its diseases.

Secondly, from affections and impressions on the primæ viæ, or on the lungs.

Thirdly, from impressions on the surface.

The more local and minor causes consist in tumours, obstructions and compressions in the course of the nerves; or spinal debility in the back bone. These are the subjects of surgical operations, or peculiar treatment.

Palsy of the first class (or source) either succeeds, or precedes, apoplexy. The latter, however, is the more genuine, as it may last some years; whereas the former, though more frequent, is mostly of short duration. There are cases, no doubt, where no apoplexy succeeds; though the compression be in the brain. Most of these cases are either hemiplegias, or paraplegias, *i. e.* divide the person by a loss of motion of one side, or of the lower extremities.

Palsy of the second class, proceeds from crude ingesta, from metallic exhalations and abrasions being swallowed, or inhaled; hence printers, paint makers, gilders, miners, &c., are the subjects of it. Certain acrid medicines taken too long, or even applied to the skin, will produce a temporary, or partial palsy: among these medicines we may notice tobacco.

Palsy of the third class has also been known to follow the external application of some drugs: as the white helebore, when applied to cure the itch on delicate persons; and arsenic. It has taken place from imprudently plunging into cool water, when the person was warm; from standing out long in damp fields, without exercise; it has succeeded rheumatism brought on by the same means. But one of the most obvious causes is exposure to a degree of weather beyond what the system can bear; hence it is found in captains of vessels, that sail packets in broad waters and long rivers, where they have to be up and out, in all weathers, day and night successively. Nearly all parts are subject to palsy: the ear, the eyelids, the optic nerve, the tongue, the arms, legs, fingers, &c., as well as large portions of the body. There is sometimes a strong hereditary inclination; as some families easily drop into this disease: two or three children in one family have been known to have half the body, *viz.* extremities affected after some sickness, or other insufficient cause: though such cases are rare.


MANAGEMENT.—This must depend on the state of the patient. So long as any apparent signs of inflammation exist in the pulse, the diet and drinks must be of

antiphlogistic, or of a cooling kind. But when there is no inflammatory symptoms, or those have *entirely* subsided, a good natural diet may be allowed: taking care to remember, that not much is required where there is no exercise. Where the *primæ viæ* has primarily suffered, the diet should be rice, milk and mush, and very light articles. So far from inattention to this rule, the author assures his readers that he has seen a child paralyzed by eating freely of half dressed pumpkins; and the affection lasted for a year. Roasting ears have repeatedly produced very disagreeable insensibilities of the extremities: even turnips have sometimes, when first eaten, shook the whole nervous system till they passed off. No cure can therefore be expected in these (most curable cases) when there is not the greatest attention paid to the diet.

CURE.—It is well observed by Dr. Dewees, that “it is easy to make palsy worse,” and it would be well for mankind if it were more curable. In all cases of an apoplectic nature, or where cold has excited the disease in a good constitution; or wherever the pulse is good, we may bleed and purge with advantage, till the pulse is brought to a proper state. Repeated blistering may also be practised about the spine. After those remedies, mercury may be introduced so as to affect the gums. Issues have been recommended; and in cerebral cases should not be neglected. As the case becomes more cold and chronic, stimulating linaments may be applied to the limbs; and the bowels opened with stimulating enemas, used daily. The bowels, in all cases, must be kept up to their natural action. The gum guaiacum and aloes will make good pills for that purpose. A small dose of jalap and ginger, or Rufus’ pills, or the bitter tincture of rhubarb; making occasional changes, are suitable. Electricity and galvanism have both been useful. The Virginia (Berkley) springs alone have cured some cases. The arated waters seem to expand the circulation without inflaming. Extensive and repeated frictions have done much good. Chalybeate medicines have been used with advantage; espe-

especially where the bowels have been primarily affected. Mustard seed, taken daily, in considerable quantity, and horseradish, so as to act on the bowels, have been praised by some physicians. In those cases that have followed rheumatism, and in all cases where the arterial system is languid, the above stimulants may be used.

See painters' cholic.

 Tremors are of the same nature as palsies.

GOUT.

Some of the causes of gout are very obvious: such as pampered living, indolence, the free use of ardent spirits and wines; to these we may add a conformity in appetites and living to gouty parents. Gout seems to be a declining disease, in this country. It is probably substituted by agina pectoris, apoplexy, fistula, dropsy, and perhaps we might add cancer: all of which depend, more or less, on the same exciting causes as gout. Gout seldom waits for its seeds to be perfected, so as to bring on a spontaneous disease. It is most always accelerated by some of those personal causes of febrile disease enumerated in chapter the first. More especially the following selection of them: debauch, indigestion, cold applied to the feet, much application of mind, night watching, passions, excessive evacuations, sudden changes in the habit of living, and the debility of some previous disease; to which may be added violences, or a strain of the parts.

SYMPTOMS of regular Gout.—'The ceasing of sweat to which the feet have been accustomed; an unusual coldness of the legs; a numbness, alternating with a prickling sensation along the course of the extremities; frequent cramp of the legs; swelling of the veins. Whilst those symptoms are taking place on the parts mentioned, the whole body is affected with a degree of torpor and languor; the appetite is diminished, and flatulence, with other symptoms of indigestion, are felt. Some days before the fit comes on, but more often

the very day before, the appetite frequently becomes greater than usual. Many authors, however, agree that all these symptoms may be absent, and the fit begin just as if they had preceded. In common, the attack commences about three o'clock in the morning, with pain affecting one foot, or both more rarely; fixing its point in the ball of the great toe. With the access of pain there is some shivering; which, as the pain increases, gives way to heat and fever, lasting as long as the pain does: usually about twenty-four hours; when sweat produces a remission. The topical affection in the foot declines more slowly; continuing its swelling and redness, but wearing away regularly. The patient feels rather recruited than debilitated by such a paroxysm. There is often a return of fever for some days, which must then be included in the term paroxysm of gout. One of the features of gout, is its regular returns; but the intervals are shorter, and shorter, as the disease fastens on the system, and the paroxysms longer and longer. Nor will the gout be content with one toe! every joint will be visited; and when these are sufficiently broken down to warrant the enemy to leave them awhile, (to attack the more vital organs,) the stomach or the kidneys will feel the influence of disease. Saline concretions, in old cases, are deposited on the bones, tendons, and other places, which harden into a substance like chalk: said to be the urate of soda; these impede the motion and stiffen the joint. Spring and fall are the usual seasons of attack, when gout is a new disease.

GOUT IN THE STOMACH, OR DYSPEPTIC GOUT.

SYMPTOMS.—Loss of appetite, indigestion, flatulence, nausea and vomiting; acid irritations, pains and cramps in different parts; irregular bowels, hypochondriac symptoms, and the absence of inflammatory symptoms in the joints. In such patients as have rode in carriages from their infancy, and have been pampered with fifty covers a day, of Mrs. Raffald's, or Henrietta

Glass' compound messes; washed down with about three bottles of ascendent wines, imported from as many quarters of the globe; we may expect gout (after a very few turns) to erect its empire in the harassed organ of the stomach. And even when it affects the limbs of such individuals, to have a very different complexion from gout, in our hardy Americans; who exercise and walk as long as they can; but, unfortunately, carry simple stimulating diet to a great excess. In these last, dyspeptic gout never gets to the stomach till a complete reduction of the energy of every other part is obtained; and then it is a finishing job. From this diversity, we find the old English authors recommending a very different practice to what experience has taught us. It is only by the greatness of the dyspepsy, and the gouty habit of the patient, that this species can be known from simple dyspepsia.

RETROCEDENT GOUT.

When the gout begins in the regular way, and then suddenly quits the limbs and fixes on the heart, the lungs, the brain, or the stomach, it is called retrocedent; and is an alarming change, requiring instantaneous relief.

MISPLACED GOUT.

This is a more rare species of gout, and is known by the general gouty habit, as well as peculiarities at the time, differing from the simple form of disease which it puts on. It will attack, offhand, the different organs that are affected by retrocedent gout; and it will also affect the muscles like rheumatism. Whatever disease it imitates, little or no attention is to be paid to its being gout; we must bleed, purge, and blister, as in other inflammations.

MANAGEMENT.—In all inflammatory gouts, the simplest and lightest diet, and that in small quantity, must be prescribed. The patient, in general, well knows what will suit him: rice and mush are among the very

best. Nothing but water should be used as long as the stomach is unaffected; when that is the case, broths and puddings may be used, and some spirit and water drank; especially when the patient has been used to it. In the intervals between fits of gout, we may prescribe without fear of medical opposition: *temperance, exercise, and a quiet mind*. The stiffness of the joints is to be remedied by steaming and swathing in flannel, as well as by the use of the flesh brush.

CURE.—Perhaps there is nothing medicinal that may be strictly called a cure. Poverty claims that honour. But the low price of spirituous liquors, and laziness, have put in a bar to this claim. However, when an industrious, gouty man, with a large family, loses his fortune, he generally gets the comfort of losing the gout with it. The doctors are mere temporary alleviations of the paroxysm. In inflammatory gout, the practice most approved is to bleed repeatedly, and to purge freely, when the disease is of any magnitude. Jalap and calomel, epsom salts and magnesia combined, castor oil, senna and salts made into an infusion, are all good purges. Dr. Gregory, Dr. Chapman, and various other practitioners, are much pleased with the colchicum, or meadow saffron, an article of great power, affecting the whole system when in an over dose. It should be given joined with a purgative: thirty to sixty drops of the wine, or eight of the powder, are a dose. It may be given with an infusion of senna leaves, every six hours, for three or four times. It is given as the fit approaches, or after it is on. The opinion of Dr. Hossack is rather against this medicine; and, although the author knows but little of this, and the famous eau medicinale; yet from its character as a *materia medica* article, he thinks that none but good constitutions (for gout) should venture to use it freely; and then it would not be worth its risk, except it were used in the approach, so as to prevent a whole paroxysm. After the patient has experienced an attack, we would recommend bleeding and purging, with safe and more simple articles. The legs and feet of a patient with

the gout, are to be lightly covered, (so as not to heat them,) with fine wool or cotton. Applications of linseed have been used by some, with various compounds added: such as saffron, bark, &c.; and such was the famous poultice bought by Bonaparte. A very strange remedy was proposed by a physician some time past, of eating one or more herrings at bed time. Whether this cured by the animal phosphate in the herring, by the salt, or whether it were a joke on poverty, is hard to say. Some gouty gentlemen, who have always had regular attacks, have immersed their legs in cold water, with impunity and relief; but it is hazardous. The late Dr. Ezekiel Dorsey, of Baltimore county, used this method on himself for many years.

In gout of the stomach, that happens in course, from previous long continued gout, the remedies used for dyspepsia are to be applied: such as aperients of magnesia and rhubarb in mint water, gentle emetics of ipecacuana, small doses of ether, or spirit of ammonia, (compound) but where gout of the stomach is retrocedent, we must apply sinapisms, use purgatives of more power, and even bleed, if the previous gout had much of inflammation: this may be done by cupping, or leeching. Blisters may succeed sinapisms. It is a great mistake to suppose that any disorder, highly inflammatory, by passing from one organ to another, can reverse its character; though it may alter the pulse. Hence, when the heart, the lungs, the brain, or stomach, are attacked by an inflammatory gout, we must use all the means of relieving inflammation speedily: by bleeding, purging, blistering. And in what is called the misplaced gout, if the characters are inflammatory, the same remedies must be applied as in retrocedent gout. After all attacks of gout, some tonics are necessary: the preparations of steel, good bitters, and strong decoctions of Peruvian bark, are to be used as necessity may require.

ST. VITUS'S DANCE, (CHOREA.)

This is a convulsive and nervous affection of the limbs, which still being, in part, under the obedience of the will, perform strange motions, in attempting to walk or take a drink of water. It is confined to youths from seven to eighteen years of age.

CAUSES.—Some secret, or known, constitutional causes, acting on the habit peculiar to youth, will most probably produce it, without farther causes; but there can be no doubt but what that habit may be increased by the manner of living, &c. Dr. Cullen's ideas of the development of different parts, at different ages, might have come in here; but the most marked constitutional state of youth, is irritability; and what we may term an unfixed state of the *vis insita* of the muscles, necessarily arising from growth.* Jumping off a horse, and other concussions, have repeatedly produced chorea; the irregular commencement of catamenia has also produced it. Improper exercises for children (*i. e.* fatiguing them by work, hunting, &c.) are known causes. The confinement of them too much; especially when they have an appetite to take an excess of food, is most probably a very common cause. No wonder there should be such discrepancy in the opinions of the faculty; some attributing it to plethora, some to mere debility, and others to nervous or cerebral derangement. An inspection of the immediate or exciting causes will at once satisfy any candid examiner, that the irritations may invade from different quarters. Thus those concussions in jumping, and fatigue in hunting, evidently act first on the muscular system; an excessive diet, improper diet, minerals, worms, &c., act on the *primæ viæ*; catamenial derangement will act on the nerves, and on the imagi-

* *Vis insita*. By this the author means to convey an idea that the new growth of parts will be subject to have their nervous actions more readily perverted, than when long used and fixed by mature age; just as the voluntary actions become more perfect by long and steady use. It is a term used by physiologists, to designate the permanent nervous energy of the organ, which is, probably, always more or less disturbed in the local point of disease.

nation of the mind: but all will centre on some one part where the disease fixes its head quarters. The disease will sometimes end spontaneously; and it will sometimes return after being cured. A continuance of it is very injurious: the voice is sometimes temporarily injured during a very short period of the disease; and other paralytic symptoms are frequent. A long continuance brings on emaciation, fatuity, epilepsy; and at best spoils the constitution.

MANAGEMENT.—It is thought to be improper to call the patient's attention to his own irregular motions: his cheerfulness must not be disturbed, his diet must be spare and wholesome: rice and broths are very proper. At first, nothing but water should be drank; and when debilitated, plenty of port wine, or old porter, may be used. Exercise, especially riding, is one of the best means of cure, when there has been no concussion to produce the disease.

CURE.—This must correspond to a certain degree with the exciting causes and general state of the system, independently of the peculiarity of youth. Therefore, when there is plethora, when the exciting cause has been a jar, or excessive exercise, or overfulness from eating and inactivity, or irregularity of catamenia, (not depending on a pure debility) there can be no question about taking some blood, and purging, to reduce the system; this, however, is not to be carried to any great extent. After this, the purging medicines may be continued merely to keep the bowels in action. But should bleeding be omitted, the purging system may be more extended. Our next object should be to arrest that vagrant action which causes the muscular or nervous symptoms. This is best done by blistering over the spine; and if needful, by applying issues of tartar emetic, or simply rubbing the ointment on the same parts. Mercury, by giving its own action to the system, has often been used with great success, both in males and females. It may succeed a trial of the tartar ointment. The proper time to use this powerful article is after depletion; but before debility. Should

the disease still continue, resort must be had to bark and steel, to the cold bath, (after giving time for the mercury to go off,) and travelling, or the use of the Virginia and other springs, impregnated with fixed air. The diet may then be a moderate quantity of meat, with port wine, or old sound porter.

In such cases as where there is much debility at the commencement, the nervous medicines will be proper to begin with: such as valerian tea, assafœtida, and then tincture of steel and bark. But in all cases a regular action of the bowels must be kept up, so as to insure against indigestion, worms, or scybila, being a source. In such cases, the aloes and salt of steel will be one of the best apperients. Fowler's solution has been used by some physicians in preference to bark as a tonic; but where a removal of debility is the object, the bark is preferable. The spirit of turpentine has been used with success as a stimulant. Perhaps in catamenial cases from pure debility, this with aloes and steel; and a little calomel, about the wanted period, might be advantageous. The tincture of lytta, or flies, might here have a place, and some opiates, when the disease affects the spirits; guarding against its constipating effects by a pill of aloes and assafœtida. But travelling in such cases of debility, with the use of bark, are indispensable. There are no cases where blistering, and especially the plasters of tartar, should be neglected; for they will seldom fail when the system has been brought to a proper general standard. When the patient has recovered, an attention to the bowels, with tonics of bitters and steel, will be necessary for some time: and the cold bath, and temperance in diet, may be used till manhood.

The plan of such extreme purging, as is recommended by Dr. Hamilton, the author thinks injudicious; inasmuch as such harassing of the bowels might lay the foundation of other more permanent diseases. And although such plans have often removed chorea of a certain cast; yet it is to be attributed to the arresting the growth of the subject, or to simple reduc-

tion, rather than to any evacuations of an extraordinary kind; and this reduction may be more judiciously accomplished by a bleeding, *moderate* purging, low diet, and issues.

EPILEPSY, OR FALLING SICKNESS.

CAUSES.—We shall here enumerate such causes as authors have known, or supposed to have given rise, to epilepsy: viz. violence done to the bones of the skull, excrescences within the cranium, all accumulations of blood, serum, water, pus, or hydatids, either within the cavities, or on the surface of the brain; particular affections of the nerves: as partial divisions, excrescences and tumours, pressing, or irritating them. Irritations in the *primæ viæ*, from foreign matters of various kinds; acting either physically, or mechanically: among which may be considered as far the most common, the irritation of strong liquors, eruptions driven in; also irritations proceeding from various membranes and glands: such as the effects of teething, and hysterical, or uterine disorder.

It is usual also among authors to rank as either general or partial causes, the interruptions, or diversions, of the circulation, exhibited in the effects of a hot sun on the head; intemperance, great pain, great muscular exertions, long stooping, long fits of coughing, great culinary heat, intense application of mind,* suffocation, or strangulation; and hæmorrhages, especially in *decapitations!!* To this list may be added the convulsions that so often finish fever, cholera, and some other diseases. Besides the above extensive list of causes that act either physically, or mechanically, making in most cases sensible changes on the parts where they are situated, there are others of a still more subtle nature, acting on the senses, making no change on their organization. Whilst a third set, passing as it were the inlet of the senses, act metaphysi-

* Many eminent statesmen have brought on epilepsy by intense application of mind; also ancient and modern generals; and some of our eminent lawyers.

cally on the mind, and then on the parts where the disease has its head quarters. Of the causes that act on the senses, the most notorious are tickling on the skin, and other irritations: offensive smells acting on olfactory nerves. Tastes are seldom known to convulse more than the stomach. As instances of causes acting on the mind through the medium of the senses, we may enumerate, dreadful sights, surprizes, doleful tidings, and the long contemplation of distressing sights, particularly of the same disease. The whole of the above causes, of whatever kind, or wherever acting at first, are divisible into two grades: one where the magnitude of the cause enables it to overcome nature in her sound state; the other where the causes would have no effect but for the extreme mobility, or debility of the system. There is no doubt but what a few repetitions of the greater causes will often bring the system to act morbidly with the lesser causes. An inspection of the great variety of the aforementioned causes, and their places of attack, will readily convince a candid mind that there must be some one central point, or foundation point, where all the above causes have access to, in order to produce this disease; and that as it takes place in decapitation, that the brain cannot either be the fountain head, nor even an indispensable way to get to it.

SYMPTOMS.—According to Dr. Gregory, the warning symptoms are head ache, giddiness, dimness of sight, flashes of light before the eyes, tickling in the ears, coldness in the extremities; and in some patients spectral appearances, (or false vision.) To these may be added, palpitations, flatulences, and stupor. But one of the most notorious symptoms, mentioned by all authors, is an airlike sensation moving from the extremities (in general) regularly up to the head: on arriving there, the fit quickly succeeds. It is called the *auna epileptica*. It would appear to be of the nature of a chill, acting on the interior, as an intermittent chill does on the surface. During the fit, the convulsive agitations are violent. The eyes are riveted and fixed,

the pupils contracted, the teeth gnash together, the tongue is thrust out, and frequently bitten; there is a foaming at the mouth, the countenance is that of a dark chill, yet full; the breathing is irregular and laborious. During the fit there is a total insensibility, which in some cases continues with apoplectic symptoms. When the agitations cease, the patient is left in an apparently sound sleep, for a short time, and then recovers by degrees; being ignorant of what has passed, but from mere circumstantial things. The debility and bad feelings are some time in wearing off. A fit lasts from a quarter to one-third of an hour; and they frequently commence whilst the patient is asleep. Youth are subject to this complaint; and in some few instances it goes off, and leaves the patient, on his reaching the adult state. There are some varieties of this disease, when the muscles are not agitated, but stiff, or relaxed.

MANAGEMENT.—During the fit, the neckcloth, waistcoat, and gallowses, are to be loosened; the head should be raised a little, if possible; a piece of leather rolled up, or a soft piece of wood, should be put into the jaws, and held there to save the tongue. Some salt may be cautiously put into the mouth. During the intervals, the patient should avoid climbing, or looking into wells; he ought to have incombustible clothes, and not have any thing to do about the fire. When he finds a fit coming on, he would do well to sit on the floor, or ground, far from any thing that might injure him. A companion should always attend him. Riding alone, on horseback, is very improper.

CURE.—Unfortunately many cases admit of no cure: such as bony excrescences, deformed head, original, or rather previously formed hydatids, and permanent collections in the brain, &c. Others admit of surgical aid: such as hæmorrhage, depressions in the skull from violence; tumours pressing the nerves, &c.; a great many irritations in the primæ viæ, and female organs, are removable: such as worms, teething, obstructions, &c. Indeed, such convulsions as proceed

from these latter causes, are scarcely worthy to be called epilepsy. The prudence of the patient can alone guard against those causes that enter by the senses. But the two sources of disease that claim our attention particularly, in the cure of epilepsy, under which all the favouring causes that remain may be ranged, are, first, debility, or excitability, brought on by any cause, or when connatural. Secondly, the partial distribution of blood, or rather the perverted distribution, in which it is mostly forced upwards to the head. The cure for debility is happy in one thing, viz. that there is no dissent among the faculty as to the means. They all recommend nearly the same tonics and nervous medicines: such as bark, steel, bitters, and cold bath; the various springs resorted to in summer, in Virginia, Pennsylvania, New York, and Maryland. Both the ærated waters, and the chalybeate waters; merely taking care, in these latter, to regulate the bowels. The principal nervous medicines are, castor, valerian, and assafœtida. Opiates may also be used, especially when a fit is expected at night, and then a blister should also be put on the spine, or some other part. To these may be added, cheerful company, travelling, removal to an upland porous soil, and pleasant temperature. Great attention should be paid to weather and to dress, and no needless self-indulgence be allowed: such as soft beds, long sleeping, tobacco, nor even tea and coffee, except a dish as a variety. Mush and milk, small fish, and birds, without much butter, will be good diet. Also, light soup, rice, potatoes, eggs, &c. The eating should be done as by the clock; and nothing tasted after sundown. Let the stomach sleep! Some port wine and water, or sound porter and water, may form part of the drinks. We come now to consider those causes, and their cure, which act by an irregular distribution of the blood, forcing it to the head, manifested in the long application of intense sun heat to the head, fits of coughing, hot rooms, great pain, great muscular exertions, &c.; see the first of the chapter. We must, however, observe, that among the causes of

irregular distribution, there are a few equally efficacious in producing the disease, that rather empty than fill the brain: such as hæmorrhage and decapitation. Taking, therefore, all these causes of partial circulation into the rationale, we cannot admit them to be more than *favouring causes*: such, in general, as lead the blood the same track it would take when excited by any other cause of this disease. Just as a cool blast of air brings on a chill, in an intermittent, when the patient might otherways have escaped: for this application of cold air leads the blood the same route it would have gone by the action of a morbid chill in its regular time. We believe, with Dr. Parry, that in most cases that the rush of blood to the head is a regular symptom; and, moreover, believe by its full *pressure* on the brain that it puts a stop to the convulsion as much so as the rush of blood in an intermittent, from the surface to the heart, produces a reaction of the heart, and puts a stop to the chill; and, as in this disease, (*viz.* intermittent) there was a cause for the chill *anterior* to its formation; so we think that in epilepsy that the cause was acting at the fountain head of the disease, before the blood made its extra movement, or rush to the head; and, therefore, as well as for other reasons, that the fountain head of the disease *is not the brain*; and that the brain acquires a large portion of those disorganizations before named, by that very rush of blood to it; which is put down by most authors as a cause; nevertheless, the incipient irritations may just as well commence in the brain, as in the spinal marrow, on the nerves, in the *primæ viæ*, or the ovaria; and with so much more effect, as it is the more irritable and important organ: so that tumours, exostosis, &c., in the brain, may be the first cause of the disease, in some instances; and malformations, enlargements, softnesses, hardnesses, &c., be the effect in other cases of epilepsy. Just as we see in the liver and spleen of persons subject to intermittent: the liver and spleen may be inflamed, or obstructed to a certain extent, in the first actions of the malaria on the

system; but the great enlargements are always attributed to the rush of blood upon them at each chill, and of course consequent. From what is remarked above, and the immense variety of places where the first excitement acts, we cannot hesitate to say that epilepsy is rather a disease of the muscles than the brain; and have set it down as such. It is believed, with reason, that the muscles, where the fountain head of the disease lies, may be reached by some of those irritations which produce epilepsy, without making the brain a necessary agent, or by-way thereto. It is in common merely an organ that happens to be in the way the disease takes; and, however great a part it performs in the pathology, it is but secondary. If we admit this disease to be a morbid state of the vascular tissue of the muscles, which, by an action similar to a chill, throws its blood into the brain, or even producing an inanition, or departure of blood from the muscles, pouring it on other organs, we shall at least join the two opposite causes of epilepsy together: viz. fulness and emptiness; both of which are acknowledged causes. It is worthy of remark, that the lines of discrimination between lock-jaw and epilepsy are so narrow, that mere time may divide them; for the former, when the causes are extensive, and act with rapidity, will end in the latter.

It is wonderful, in some cases, to observe how small a cause, when acting on the interior, will throw the whole circulation out of balance. We see this in a thousand instances: a mere idea will throw a quantity of blood into one part, and cause it to burn; whilst it has an exactly opposite effect on another part of the system. The causes of the palpitation of the heart, show us how that organ is convulsed (throbbing) by fulness as well as inanition; and the two diseases are so nearly similar, in all respects, that we may say epilepsy consists in an irregular distribution of the blood in the muscular system.

Is the aura epileptica a muscular chill?

As the author has taken new grounds, he was obliged

to enter into some theory. If his theory is correct in the main point, it will lead to more hope in the disease, and a better practice.

It will be necessary now to resume the subject of cure, as pertaining to those temporary plethoras, and partial distributions of blood affecting the brain; which, however, merely by themselves, could not produce epilepsy, unless joined with a predisposition in other parts, but then become a sure source of disease.

We may remark beforehand, that the *primæ viæ*, both by its secretions and peristaltic motion, is a delicate index to the state of the system; and that the arterial system (or pulse) is another index, which, though more tardy, is more important. When the former is checked in its natural actions, head ache, indigestion, constipation, &c. ensue; by any of these we readily perceive that disease, either more local, or more general, has invaded the system. The pulse will soon make farther demonstrations, explaining the extent of disease. When, therefore, any of the above mentioned irregularities are taking place in a patient susceptible of epilepsy, he is not to wait to see the extent or issue of those minor affections; but, on the contrary, must regard them either as the advanced symptoms of the disease, or as pioneers and sappers in an army, that will surely bring the walls to the ground, if they are not arrested. The disturbances of the *primæ viæ* are to be met by emetics, purgatives, and cooling sudorifics: such as neutral salts, with antimonials; and, when of a nervous cast, by the prudent use of pedilivium and opiates. When the pulse has been affected, and a circulation tends to the head, not a moment should be lost: a dose of salts, or other purge, should be instantly taken; and, as soon as down, a vein should be opened, and blood taken in proportion to the constitution and age of the patient; paying attention also to the age of the disease, and the apparent disturbances; for when the disease has become one of long standing, and of frequent repetition, we cannot bleed so freely; a blister and purging must supply the lack

of bleeding in such cases. And in every case, whether the premonitory symptoms be in the pulse, or in the *primæ viæ*, there should be all attention paid to avoid the causes; and little or no diet of any kind used, till such previous disease has been removed. No doubt many of the affections alluded to would end without inducing a paroxysm of epilepsy; but who can tell? This, however, may be told, that whoever pays the attention necessary to such warnings, would not have one fit where five would occur by a neglect. One of the greatest objects in the cure, aimed at by all medical men, is to lengthen the interval.

Although in the above the author has confined himself to such affections in the *primæ viæ* and the pulse, as precede the irregular circulation in the head, yet he would advise an epileptic patient to regard every pain and every symptom of disease in the same light: for they all become subservient to the master disease; even a common catarrh, an ear ache, a tooth ache, a violent shooting of a corn, should demand his attention; though it be no more than to soak his feet and watch the weather. Like the prudent mariner, he should see that his ship be in proper trim to meet the approaching tempest.

These admonitions are somewhat specific, being applied to previous indisposition. But in a general recommendation for such partial plethoras, when there are no symptoms of any disturbance, the patient is advised (without any delay) to reduce his system, by abstinence and watery drinks, to the lowest state compatible with health; and if need be, to use bleeding and purging to hurry on that point before a fit can return. When the system has thus thrown off those *favouring* causes, there will be a more suitable state of the system to accomplish whatever may be recommended to remove the muscular debility, or irritability. This removal may be accomplished by exercise, prudently and regularly conducted. In boys, the gymnastic games will be of great service, provided they are not extended to fatigue; the cold bath and sea bathing will be other

great means. Travelling will be a third means of great consideration. Bark waistcoats and frictions are also conducive to the same end. If any great sensibility exists, the electric machine should be used. Issues have also been found useful in all plethoric cases, partial, or general: these may be seatons; or tartaric ointment rubbed on, near the spine.

Whether the arresting the aura epileptica, by the application of a ligature, has been of more service than it would be at any other time, just as the circulation was becoming irregular, is doubtful. Besides the tonics, a number of other medicines, with their doses, will be found in the following tables; which will include nearly all the different means that have been used; but it must be confessed rather empirically than systematically.

First, articles of a stimulating nature: principally essential oils, that act on the *primæ viæ* as a stimulating liniment.

A. Oil of amber, ten to twenty drops, three times a day. It must be dropped on sugar: say a few drops at a time, till the dose is taken. It is one of the best stimulants; and succeeded in one instance with the author.

B. Balsam of copaiva, may be taken in the same quantity and manner as the oil of amber; where there are obstructions in the bowels, from piles, it may have a preference.

C. Oil of savin may be used the same way as the oils above; but in half the quantity at first; or thirty grains of the powdered leaves, three times a day. In obstructed catamenia, these may have a preference.

D. Oil of chenopodium (wormseed) five to ten drops, two or three times a day, in honey, for adults; not over five or six for children. It may have a preference where worms are suspected to induce fits.

E. Spirit of turpentine, twenty to thirty drops, three

Two cases came under the observation of the author, where a removal, more exercise, and perhaps less care, performed cures: both adults.

times a day; in milk, honey, or molasses. This may be used where worms are suspected; or obstructed catamenia are accessory: large doses are used; but such would not do to continue in any length of time.

F. Oil of rhue; this is a powerful medicine: five drops in honey, three times a day, are sufficient for an adult; it has, however, destroyed children.

Secondly, articles of a tonic nature that do not excite the pulse, like bark and wine, unless pushed so far as to produce a topical inflammation.

A. Arsenic; six drops of Fowler's solution, when diluted with a tablespoonful of water, may be used five times a day with perfect safety, till some particular symptoms give warning to stop.

B. Nitrate of silver, one-eighth of a grain, may be gradually increased to two grains for a dose, three times a day. It may be made into pills with bread; a long use of it will colour the rete mucosum. This is an important article, and should always have a trial.

C. Flowers of zinc, either alone or joined with an equal quantity of ammoniate of copper; one grain of each may be increased to four or five of the compound. They may be formed into a pill, with a little wax and oil melted together, kept for the purpose, made nearly as soft as basilicon.

D. Sulphate of zinc, one to three grains, twice or thrice a day, made up with soft manna. This is a good medicine, when feverishness or costiveness attends.

E. Tincture of steel in spirit of sea salt, ten to twenty drops in some water, two or three times a day, regulating it according to its action on the stomach. It is an important tonic, and should always be used in debilities; and especially in female cases.

F. Phosphorous has been used, but it is only fit for the hand of an experienced physician. It is said to inflame the stomach, at times, when given, even in doses of one-eighth of a grain.

Thirdly, articles of a poisonous nature, which, by arresting the morbid actions, and establishing their own, may thus stop for a while the progress of morbid

accumulations; however, if they are misused, they produce the very disease they are given to cure.

A. *Datura stramonium*, or Jamestown weed; ten drops of a saturated tincture may be given two or three times a day. It has been used with success.

B. *Atropa bella donna*, foreign nightshade.

C. *Solanum nigrum*, American nightshade; both of these may be used in a saturated tincture, taking ten drops for a dose; and proceeding with great caution.

Fourthly, articles of a sedative nature, that should not be long continued.

A. Sugar of lead, two grains, three times a day.

B. Prussate of iron, used in No. 1, of Prussian blue, five to ten grains a day.

N. B. The articles in the first section should not be used in plethoric cases. The articles in the third and fourth, should not be tried upon weakly patients.

TETANUS, OR LOCKJAW.

This tremendous disease arises from different sources, and very unequal causes. In some of these there must have been a strong predisposition in aid to have caused tetanus; and as the disease is far more prevalent in warm climates, the predisposition would seem to consist in a certain relaxation, and consequent irritability of the muscular tissue; where the disease appears most evidently to fix its head quarters. But whilst we suspect this predisposition to be necessary to aid such trivial causes, as are some of those hereafter enumerated, we cannot but allow other causes in the list to be equal to the overthrowing of any constitution.

CAUSES.—These will be found as follows: viz. laying on the cold ground for a length of time, (*i. e.* a night;) going into the cold bath when warm; a strong current of air applied to the body whilst unusually warm. Worms and hunger are also stated as causes acting on the *primæ viæ*; but perhaps in both of these, the stomach, or bowels, might be eroded. Dr. Rush and Dr. Potter have enumerated, as known causes, the

stumping of the toe, cutting corns too close, irritating them by dancing, the fretting of a tight shoe, lacerating of the gums, the stroke of a whip, puncturing the fingers under the nails with needles. Many other trivial causes might be enumerated. In one instance, known to the author, a piece of needle had been broken off (some months before) in the finger, or had merely punctured it; as it was not sufficiently known which. Ulcerations of the navel string, or mere irritations about it, for want of proper care, has induced it in infants; more especially in warm or very cold countries.

The more conspicuous causes are gunshot wounds, lacerations, large incisions, (as in amputated limbs) or the partial incision of a nerve, surfaces exposed to the irritation of cold. Two instances were seen by the author of this latter kind; one where a West Indian came to the northern state with a sore leg, and did not give the limb sufficient dressing for the climate. He recovered by the use of mercury. The other was a poor runaway slave, that was tied so tight that his skin mortified; and as soon as the cold air had free access to the sores (for they were not dressed) he was taken with the lockjaw; and died in twenty-four hours in a convulsion fit. But the most common cases occur from sticking rusty nails, splinters, glass, &c., in the bottom of the feet; and not having the wound brought to suppuration. Mashing the fingers and toes are also very common causes, when neglected. There are some symptomatic causes that arise from fevers, even intermittent; but they generally yield to the same remedies that cure the fever. Poisons, and poisonous bites, are also said to be causes.

SYMPTOMS.—The patient feels a stiffness about his neck, and at the root of his tongue. It becomes painful to move the head; the jaws then stiffen, so that he cannot open them to the usual extent; pains fly from the breast to the back, quite through. In a little time violent spasms afflict the abdominal and various other muscles; drawing the patient backward or forward. These spasms return, at first, every quarter to half an hour;

and at length at every attempt to move. In some cases only the jaws are affected. The disease lasts from two to ten or twelve days; and ends in a fit, or in pure debility and death.

The commencement of this disease, after an exposure to cold, is generally pretty quick, often the next day, and so in some few injuries; but in general it takes place in about five to ten days after. A good deal will (in some cases) depend on the state of the wound: for this may suppurate well at first, and then (perhaps through neglect) fall off, and bring on lockjaw. It has been said that about twenty-two days will insure safety; but nothing will do this whilst there is an open wound, that may be thrown back by neglect.

CURE.—Under this head we may introduce precaution. When a wound has been inflicted, leaving some suspicions, every means should be used to prevent the expected disease. Great attention should be paid to the bowels; they have a great propensity to become costive with this disease, and by getting them free beforehand, there is much good to be expected; and, as a great many cases (as before said) must depend on constitutional weakness, it would be well to use plenty of good bark, with wine, daily; by which wounds of any size would be brought to a good suppuration, and others hindered from mortification; to which there seems, in some cases, a tendency previously to the lockjaw. The wounds should always be dressed with a strong suppurating salve, where they are not very large.* If large, they should have a common poultice applied on the first two days, and they should be laid over (especially if ragged) with a dressing of equal parts of laudanum and Turlington's balsam: this is to be put on with light lint, and over this a warm poultice of scalded camomile. These dressings are to be renewed night and morning; and when suppuration is fairly formed, it may be kept up with basilicon ointment, or white varnish.† In all small wounds, or closed

* See the apothecarium.

† This may be had at the paint stores, and is an excellent dressing.

wounds, the opening of them freely, and dressing with the suppurating ointment, is indispensable. Bladders of warm water, or hot bricks, will greatly aid in keeping up suppuration; and in all bad cuts or bruises of the foot, which are so apt to produce lockjaw, a foot-stove by day, and warm bricks by night, are *indispensable* in cool or cold weather, or even in hot weather, if the feet become cold. The application of blisters near the edges of wounds that have no disposition to suppurate, would be a good practice.

When lockjaw has commenced, if the member wounded is a toe, or finger, or even two or three, and they can be well amputated, (that is, far above all injury) it should be done, as such practice is advised by high authority; and has succeeded in the hands of Dr. Potter in two cases. There is no one medicine in which all medical men seem to agree, as being the main dependance, so much as opium; which must be administered in smart doses, of about two grains or more, every three or four hours, so as to keep up a constant action; and Dr. Baker, (professor of materia medica, in the Maryland college of physicians,) recommends it to be used the same way, as a *preventive*, in suspicious cases. If the jaws are closed, so that the opium, or even laudanum, cannot be taken that way, one hundred to one hundred and fifty drops may be injected into the bowels, every three or four hours. It is said that it will have a considerable effect if applied in laudanum, on the surface; or in plasters on the soles of the feet. Perhaps a plaster made with two drachms of opium, mixed up with some honey, and thickened a little with flour, and laid on a part that has been denuded by a blister, or liquid caustic, would be one of the best methods of applying an opiate externally. One of the greatest inconveniences of using opiates internally, is the disposition to increase the constipation that attends this disease. This must be met by adding a full dose of calomel, once a day, to the opiate; and where wounds have induced lockjaw, if not in other cases, the mercury may be considered

as a remedy, having a strong tendency to produce a good suppuration; and when the calomel cannot be taken by the mouth, to open the bowels, enemata of salts, or strong soapsuds, with a little aloes, or gambouge in them, may be used;* and mercurial ointment be rubbed on the thighs, or laid on a part that has been blistered or cauterized. When the opium has made a good impression by lessening the spasms, we must not forget to introduce the bark and wine freely, if not done before. And as the patient gets better, to withdraw the opium very gradually; but not the bark and wine for one or two weeks after the patient has got rid of his spasms, or of the constriction of his jaws. But should the opiate not succeed in reducing the spasm, the next best remedy will be the spirit of turpentine, taken inwardly, and aided by topical applications. Dr. Mott, of New York, gave a teaspoonful of spirit of turpentine in some broth, every fifteen minutes, till it had some effect, and then lengthened the time; but gave one hundred and twenty-three teaspoonsful, in thirty-six hours, with success.

The topical applications of most note, are either caustic, or spirit of turpentine: a drachm of caustic may be dissolved in an ounce of water; and this may be applied for some inches on the sides of the spine, either by a sponge fastened to a fork, or by cutting a piece of old soft pasteboard, of the proper size, and laying it in a plate where the caustic is dissolved; it may be taken out with a pair of forceps, and layed on the part, for a quarter of a minute or more, till the skin is much inflamed. The spirit of turpentine may be applied, as was done by Dr. Stevenson, of Baltimore: that is, by cutting over the part where the wound was, and laying in a piece of lint, dipped in spirit of turpentine. When there has been no wound, the fleshy part of the arm, or thigh, may be used to insert the spirit of turpentine; and when there are wounds already

* Re. soap, one drachm, scraped and dissolved so as to pass the syringe; take ten grains of gambouge, or thirty of aloes, and grind it fine, with a little of the enema; and add it to the rest.


opened, the incisions may be very near to them, if the parts will admit; if not, the caustic must answer.

Embrocations are sometimes rubbed, extensively and frequently, over the abdomen and contracted muscles. One of the best is the following, taken from Dr. Thomas's work: *Re.* oil of amber, half an ounce; opium, two drachms, made very fine; lard, one ounce; mix.

It may be well to mention here, that opiates in a compound form are recommended by some physicians. The Dover's powder is one form; salt of tartar and opium, in the proportion of three of the former to one of the latter, has its advocates; as also compositions of opium, camphor, and ether. The following will serve very well: *Re.* paregoric, one and a half drachms, ether, one drachm; to be taken in wine, every three or four hours.

In cases from the application of cold, in warm countries, or in the summer, in any country, the cold bath, as advised by Dr. Thomas, should have a trial; which is warranted by his great success. A large bucket of cold water is to be thrown on every two hours; the patient is then to be wiped dry and put to bed. Maybe, a bath prepared with acid, so as to stimulate the skin, might be useful. If the patient recovers heat after the cold bathing, it may be continued, otherwise not. But the doctor still administered opiates, bark, &c. during the use of the bath. No means are mentioned, in this paper, but what have been successful at times.

Some physicians have ventured to bleed in this disease; but in a pure idiopathica case, the pulse seldom alters, till a debility, that will be fatal, affects it with a smallness and frequency. There is no proof that bleeding ever did good, even though it was pretty well sustained.

 When a patient can swallow, but cannot get entrance into his mouth, one of the most decayed teeth may be punched out, or a dentist can file a place between two that will admit fluids.

In all gunshot wounds, the wads must be removed, and shot or ball, when not firmly and deeply fixed,

must be extracted as quick as possible, and some warm water injected to wash out the powder, if any is in the wound; and all splinters, glass, &c., must be taken away from the wound by incisions, if they cannot be otherways removed.

DISEASES OF THE STOMACH AND BOWELS.

CHAPTER VII.

CHOLERA MORBUS.

This disease is strictly confined to our summer, and first fall months; at any rate north of the James's river, in the Atlantic states. It consists in a vomiting and purging of crapula and bile, without much intermission.

CAUSES.—Taking into consideration, the predisposition brought on by close sultry weather; and especially when very hot days are succeeded by cool nights; there seems but two sets of general exciting causes, necessary to produce cholera. One, where the patient has made too free with indigestible articles, for some time, of a debilitating and acidifying nature; or where he has simply played the gormand with good eatables. The other, where the patient has fatigued himself, or been exposed all day to a hot sun, and then imprudently courted the cool breeze, at evening, or slept with his window open, or perhaps taken a cool bathing, or a large drink of cool water, or ice punch; and not unfrequently added the first set of causes to these more serious. It may be taken as a pretty sure rule, that when a predisposition exists, that any causes, whatever, that would bring on a cold, or a fever, will in those instances bring on cholera. It is, in fact, a short way of getting rid of a longer disease, though a severe one.

SYMPTOMS.—The disease will sometimes be threatening for a day or two; and the issue will much depend on the patient's prudence during that time. But in a great many cases the attack is very sudden, and often unexpected, and very frequently at night. Some

languour, nausea, and griping, usually precede, heats and feverishness; and then a discharge or so downwards; which is soon succeeded by other discharges, both ways, in rapid succession: all the undigested matter first comes off, and then the bile. The thirst is intolerable, and the heat of the skin like fire, in most cases; though it is cold in some others. When the heat ends in profuse sweat, the patient feels easy for a while; but he is not long quiet: the puking and purging return till he is like a child in strength. The pulse becomes quick and small, and the head is sometimes affected with dizziness; the eyes look sunken, the face wan, the calves of the legs are drawn up with spasms; which sometimes extend to the thighs and diaphragm. Hiccup, cold extremities, and a sinking pulse, generally close the scene, after an immense discharge from the *primæ viæ*. It is not always so very rapid and severe, but will extend to a day or two; there are many cases, however, where a single night has consumed all the vital powers.

MANAGEMENT.—The patient should have good assistance; and though he is so thirsty and craving of drink, care must be taken, when it becomes necessary to stop the vomiting, not to take much more toast water, or green tea, than will wet the mouth. The bed-pan must be at hand, and though the patient be so heated, he must take care to have a light blanket, or flannel gown, to cover him when he rises, especially after there is a probability of a free perspiration, which must be encouraged. And when the disease has lost its terrific features, no temptation must induce the patient to tamper with his stomach: his judgment, and not his appetite, should save him from another attack. He should live like a child for some days: a little rice, or custard, or some thin chicken broth, will be good food; and toast and water, or a little very weak toddy, his beverage. His clothing must also be attended to; and finally, his exposure to hot suns, or marsh effluvia, be forbidden.

CURE.—After the stomach and bowels have discharg-

ed the undigested food and bile, which may be aided at first with draughts of camomile tea, we may proceed to check the evacuations. If the disease threatens to be severe at the offset, a blister should be applied over the stomach, and carefully kept on with a flannel band, as the first article; remembering that it will be some hours before it draws. After the camomile draughts, a total abstinence from all fluids, except what little may be in the medicine, should be enjoined. Twenty or twenty-five drops of laudanum, in a little mint or cinnamon water, may be administered every half hour; or a still stronger portion if this is not sufficient. Sometimes a little elixir of vitriol will quiet the stomach very rapidly, and so will small portions of soda; they may be given alternately with the opiate.

In slighter affections, or when the vomiting has longer periods, the saline draught may be used, or a little fine chalk and cinnamon water. Green mint toddy, and a toddy made with common gentian bitters, are occasionally very grateful, and useful.

It has been a practice in mere vomiting to throw the disease entirely on the bowels, by giving thin broths highly salted, and using enemas: perhaps a pill of sal ammoniac might have the same effect. But the opiates are the main stay. If the feet are cold, a warm bath, or bladders of warm water, should be applied, and sinapisms applied afterwards.* Care must be taken to renew directly such opiates as are cast off the stomach. Some columbo will be necessary to strengthen the stomach after an attack; and the bowels should be kept open with powders of rhubarb and magnesia.

There can be no doubt, from the nature of the disease, as well as from dissections, that there is an inflammation in the stomach and bowels: often communicating the same state to the liver and neighbouring glands. Nor is it any argument against this, that stimulants are used with success to check it; for the nature of the

* A mustard bath, or rubbing some mustard over the calves of the legs, and drawing over them long stockings, is often useful for the cramps of the legs.

disease, in many cases, precludes medicinal evacuations;* it becomes its own rough medicine; whilst the physician's prescriptions are but secondary things.

INFLAMMATION OF THE STOMACH.

CAUSES.—External violence, potent and over doses of acrid medicines, large draughts of spirituous liquors, water drank too cold whilst the body is heated, exposing the stomach to a cool current of air, after hard exercise; as often happens after a gust in harvest. Inflammations extending from adjacent parts: as the bowels and the liver. Beside these causes, the stomach is liable to be inflamed in eruptive fevers, and in gout. These, with poisons, will be noted in their proper places in this book.

SYMPTOMS.—A violent, pungent, throbbing pain, and burning in the stomach; pain on pressure, inability to lay in some postures. But the pain is not always very severe; a rejection of every thing taken into the stomach is a main symptom; especially when the simplest thing swallowed becomes so intolerable, as to be voluntarily thrown off. The pulse is generally febrile: sometimes small, sometimes intermittent.

* Dr. Hossack, nevertheless, recommends in full habits, with pain on pressure, the use of the lancet, and when the system has been sound at the commencement of the disease, especially in our states north of the Potomac, such practice may be justified. It will be more so if the patient has stood the disease ten or twelve hours without that great reduction that it sometimes effects in a few hours. In advanced pregnancy it would be highly judicious.

§ It is too soon for an author to introduce, in print, a disease that is so little known as the Indian cholera. The mere seeing of thousands of patients may end in full ignorance of it. But from what little knowledge has been gained, the author would recommend all persons near to infected places and persons, to keep their attention on such diseases as partly coincide with Indian cholera; and oppose their causes, and remove them speedily if set in. These are common cholera, inflammation of the stomach, dysentery, and a typhoid predisposition. The road to these may be learned by examining each of those diseases, (in this book.) It is the typhoid disposition that arms the foreign disease with the shafts of death; and next to that, the inflammatory broken down habit which attends drunkenness. Peruvian bark, taken daily, and clear dry sweet air and soil, will remove the former, as certainly as pure water will the latter. This much may be worth a place, as this book may be in circulation before the disease quits these United States.

MANAGEMENT.—Nothing but small quantities of barley water should be drank, when there is no foreign matter in the stomach; and even this will excite fresh vomiting. Great care to live in the simplest manner, for some time after, will be necessary: a little rice and milk, and mush will be sufficient.

CURE.—Bleeding is indispensably necessary in all cases; and must be often, and quickly, repeated. A large blister must be laid on the region of the stomach. An operation downward is of great importance. Two grains of calomel may be given, every quarter of an hour, directly after vomiting, taking no drinks; fifteen or twenty grains, or more, may be thus given; and some enemas given of glauher salts. But should this not lay on the stomach, calomel joined with opium may be given in stout quantity, say ten grains of calomel, and one or more of opium, every two or three hours, till we judge enough has been used to ensure a passage; and as soon as castor oil can be retained it must be used. But should there be a spontaneous purging, the calomel and opium must not be used; but fine sweet oil if it can be retained; if not, the whites of eggs.* Enemas of oil will always be useful. If the vomiting continues after free bleeding at the arm, cupping over the stomach should be tried. If the feet are cold, a warm sponging will be useful.*

INFLAMMATION OF THE BOWELS.

Nearly the same causes produce this as produce inflammation of the stomach; but we may add, as causes, costiveness, cholic, and hernia. See the article cholic.

CURE.—This is exactly as for inflammation in the stomach, viz. bleeding, blistering, enemas, purging, and to this may be added warm bathing after bleeding. After removing all the immediate obstructions in the bowels, though there are many cases where no extra costiveness takes place, it becomes necessary to keep the bowels loose; for this, if castor oil cannot be re-

* See the chapter on accidental diseases.

tained, some magnesia, say ten grains, with one grain of ipecacuana, every half hour, will often answer the purpose.

Hernia requires immediate surgical aid; but when this cannot be had, large bleeding, enemata, castor oil, and bathing, for one or two hours, in water moderately warm, will often enable the parts to be reduced, by the hand, if not of too long standing

VOMITING OF BLOOD.

CAUSES.—Obstructed menses, and other suppressed evacuations, obstructions of the liver, enlargements of the spleen, pregnancy, passions, costive state of the body, erosions by poisonous articles swallowed, and violent straining to vomit. To these we may add the petechial state of low fevers, and of eruptive diseases.


SYMPTOMS.—A discharge of grumous blood, though sometimes pure, or very thin, and mixed with the usual contents of the stomach, and not frothy and light. Though there is often some cough, it is not of that action which takes place when the lungs is diseased. Some pain and weight is generally felt about the pit of the stomach, and a vertigo, before the blood comes up.

MANAGEMENT.—During the intervals, the patient should live abstemiously, take all pains to remove every cause, make no great or sudden exertions, keep from great heats; and whatever may be the cause, attend well to his bowels. When the effusions of blood take place, he should retire to a cool open place, and unbutton his waistcoat and collar. Sitting up will be preferable to laying down.

CURE.—In putrid, or low fevers, the cure must be in a general way, as for such febrile states, as well as by applying styptics to the stomach. In case of acrids swallowed, they must be counteracted by the means directed in the chapter on accidental disease. In most obstructions, whilst the constitution is good, and the discharges not considerable, bleeding at the arm will be useful. Enlargements of the liver and spleen

produce the worst cases, as they will recur; and all that can be done is to keep the intestinal canal as empty as it can be, by using a small nourishing diet: such as mush and milk; and when the vomiting takes place to use opiates and astringents.

When the discharge is too free, we must use astringents, be the cause what it may: for this purpose alum whey is a good article. A purge of salts, with fifteen grains of alum to each quarter of an ounce, may be given at the offset, or on the first cessation, administering it in divided doses. In the more violent cases opium will be necessary; it may be joined with sugar of lead: thus, laudanum, twenty drops, gaulards extract, ten to twenty drops, every hour or oftener, in a little water. Ruspini's styptic is the most effectual, and should be kept on hand. Dr. Thomas thinks the tincture of steel in spirit of salt, say fifteen or twenty drops (diluted so as to be not too rough) given every two hours, singularly adapted. Glysters of cold water are always proper. Blisters are also recommended over the stomach; perhaps a pinch of salt may be as effectual in this as in hæmoptoe. Dr. Hamilton considers purges, in obstinate cases, as the best remedy.

 When any discharges of blood from the bowels, are not the consequence of piles, they are to be considered of the same nature as vomiting of blood. Glysters of cold salt and water may be used in all cases.

FAINTING.

CAUSES.—Excessive exertions, heat, large evacuations, excessive passions, as fear, anger, joy; suddenly depriving the body of any compressions, distensions, or pains that it has been for a time used to; also violent pain, affections of the stomach, disagreeable and strong odours, debility from fevers, loss of blood, &c.

SYMPTOMS.—A languor, anxiety, or giddiness, and dimness of sight, precede; at other times the fainting comes on suddenly. The patient turns pale, and sinks

away, appearing dead; the pulse fails altogether, or nearly so, and there is little or no respiration; a cold sweat often breaks out, standing in large drops on the face, which is as cold as death. After a few minutes the patient comes to himself, vomits, or is sick at the stomach, and feeble.

MANAGEMENT.—The patient should be suffered to lay horizontally, in a stream of air; a little cold water may be sprinkled on the face, and all causes removed. Thus, when in a close room, with company, an instantaneous removal is necessary; and when the causes are of a more permanent nature, as hæmorrhage, and long fevers, he should not be permitted to sit up, or get up, for many days, till his strength is greatly recruited. These latter kind of faintings often end in death.

CURE.—The limbs should be rubbed in a direction to force the blood to the heart, *i. e.* from the fingers and toes upwards, towards the heart; some hartshorn should be applied to the nose, and as soon as he can swallow, a teaspoonful of volatile spirit given in a wine glass full of water, or in a little wine and water. In a long fainting, where these remedies do not answer, artificial heat should be applied to the feet and bowels, and a stimulating glyster given. Dr. Dewees recommends a few drops of spirit of hartshorn to be used in that way; say forty drops to four ounces of water. It will be well to take some gentle tonics for a while: such as an infusion of bark, bacchons tea, &c., to restore the strength.

DYSPEPSIA, OR CONFIRMED INDIGESTION.

CAUSES.—The free use of coffee and tea, untimely eating, as at bedtime; using too much thin watery diet, such as broths; or eating very rich diet, such as fat meat, and rich spiced soups; the excessive use of butter, too great a variety of diet, at one mess; exhausting the digestive fluids before regular mealtimes, with porter, cheese, cakes, wine, &c. The large use of ardent spirits, the use of tobacco in any way, sugary desserts,

and oily or hard nuts, after dinner. The frequent use of saline acid, acrid, and narcotic drugs; also of mercurials. The frequent, and unnecessary use of pukes and purges. Inaction of the muscles, long laying in soft beds, and in warm close chambers; especially with many inmates. A sedentary life, in studying, or for other purposes. Confinement in banks, offices, jails, and subterraneous abodes; especially in large public, or company buildings; which, when of stone or brick, retain a moisture, and a temperature of their own,* *discordant with the atmosphere*. The inmates become strangers to sunshine, and the usual temperature of the air. To these causes may be added, the compression of the primæ viæ, by dress: as in stays, lacing, corsets, and by various modes of business, or trade. Previous and concomitant disorders: as intermittents, obstructed liver, schirrus of the stomach, dysentery. Various uterine diseases, (structural, or functional.) All great, and continued, natural, or accidental, evacuations; a moist sea side habitation, warm or cold; but especially the latter. Long exposure to raw bleak winds; cold long applied to the feet, by standing in damp places; riding hard for any distance, immediately after eating; neglecting to anticipate, or follow, the changes of weather, by a timely use of flannels and thick shoes; all enervating habits and customs; too extended suckling; a gouty diathesis: constitutional disposition to a relaxed inflamed state of the surface of the primæ viæ, nearly as in piles;† neglecting the calls of nature as to the bowels, which should be evacuated once in twenty-four hours. All low passions: such as grief, care, anxiety, fear. The above causes, more or less, combined, and applied for any length of time, will be sure to produce first, a temporary, and then a permanent dyspepsia.

* The temperature of the atmosphere varies every two or three days in most seasons, and it will take, at least, two days of one temperature to pervade the walls of a large house.

† Dr. Parry's opinion was, that all dyspepsia depended on a morbid fullness of the villous coat of the stomach.

SYMPTOMS.—These vary according to the causes: (external and internal) as well as from the peculiar part of the primæ viæ that suffers from the incarcerated air. It being sometimes in the stomach, at other times higher up, or lower down, the intestinal canal; just as we find it in cholic. The sympathies connected with the organs that give rise to many of the species of dyspepsia (see the tabular arrangement) will also give additional symptoms. But the most usual symptoms are, distensions and pains of the stomach, or bowels, costiveness, loss of appetite, heart burn, eructations of acid or oily crapula, water brash, unnatural discharges: sometimes of undigested aliment and bile, at others of ash coloured fœces, or small flattened, or compressed, excrements. It will sometimes happen that the appetite is so good that the patient is led into continual errors in eating. In some species the patient will do pretty well during the day, but as soon as warm in bed, he becomes restless, feverish, nervous, and full of pain; he will be often afraid of turning in the morning, for fear of a lacerating pain through the small of the back, or bowels. It would be needless to say more to characterize the disease. It may be well, however, to apprise the patient that dyspepsia will frequently alternate, and associate with rheumatic pains; more rarely with piles, and with asthma. In most cases, the pallor of countenance is a strong mark of its becoming an obstinate dyspepsia, and though it is not considered a mortal disease, yet it sometimes induces dyspnoea, and dropsical swellings (in the more severe protracted cases) that terminates the patient's sufferings in death.

MANAGEMENT.—Every cause, that is at the patient's will, must be removed. His diet and drink must be plain and simple, adjusted to the weakened digestion; and, moreover, taken at a proper time: *never at a late hour*. Let the stomach sleep! Bread made of all the contents of the wheat, is fashionable; no doubt that it is more apperient; but it certainly is not so digestible as fine bolted flour, properly prepared; neither is bis-

cuit so digestible, and free from acidulating, as good fermented bread, used the day after baking.

Rice well boiled with milk, and milk and mush, are the best of all diets for a disordered stomach and bowels. But a dyspeptic may use any fresh lean meat, in small quantity, or small fish without butter. All the dishes made of eggs and flour, without butter, and a moderate portion of sugar, are good diet for him. As to vegetables he must make his own selection from experience, taking care not to use much, and especially when first coming in season. Fruits can scarcely be used, but in very small portions: cherries, melons, and peaches, are the worst; some patients can, not only eat an apple, but with advantage; as it will keep them regular in their bowels. A mattress is necessary at all times, but particularly in summer: early rising, bathing, walking, sailing, riding, and visiting the springs, will be of great service to him. The York, Berkley, Rockingham, white sulphur springs of Virginia, and Saratoga, are all good waters.

The springs about Baltimore, impregnated with iron and sulphurated hydrogen gas, might be advantageously used by adding one or two grains of salt of steel, to each pint, to make them more aperient. It should become an undeviating practice to keep in, when the weather is wet, or raw, and to turn out in all good weather.

CURE.—Although, in many of the species of dyspepsia, there may be no periods of good health; yet, in general, dyspepsia is not incessant; and paroxysms of a few, or more days, are relieved by returns of a pretty good digestion, and relief from pain. The cure, therefore, may be palliative for the present oppression, or it may be suited to prevent returns of those paroxysms. The palliative is, in most cases, easily accomplished, by immediately abstaining from tea and coffee, and avoiding all other causes, or perhaps by a total abstinence for a day, and by cleaning out the crapula, and incarcerated wind that has produced the uneasiness. This is done by a purgative: such as a

pill of aloes and calomel, or a little jalap and magnesia. If the acid is considerable, a few grains of soda may be added. When the pains are so frequent, or violent, as to demand speedy relief, or where they return after purging: twenty drops of diluted ether, with ten of laudanum may be used, and repeated. Some of the chalk julaps (see the apothecarium) are well suited to dispel the wind, and correct the acid.

The patient should return very cautiously to his diet, taking only a little rice and milk, or some very light article, for the first day; for all purgative medicine weaken for a while the digestive powers.

As to the preventive, or radical cure, it must be evident, that it is impossible in all such cases as are enumerated in the table under No. 1; which see. And in such, a palliative course is all that can be used. However, in cases of abstricted liver, it will be well to try the blue pill occasionally, as that organ may, besides the permanent affection, have temporary increases of sluggishness, or interruptions in the discharge of bile.

In all those cases represented in No. 2, of the tables, the primary cause must be removed before a cure can be expected. Nevertheless, as there may be an association of causes, and reciprocal sympathies, an attempt should be made on the stomach at the same time that it is made on the primary affection; and this attempt should embrace not only the medicines beforementioned for a palliative cure, but especially those named hereafter for a radical cure of other species.

All the remaining causes of dyspepsia, which, indeed, are the true disease, or idiopathic dyspepsia, so called in contradistinction to sympathetic, may be considered as affecting the *primæ viæ* in two distinct ways: one producing a certain degree of inflammation of the relaxed kind, similar to the first formation of hæmorrhoids;* and the other a state of irritation and

* The author thinks Dr. Parry was too confined, in fixing on the stomach alone, and too general in supposing it the whole source of idiopathica dyspepsia.

spasm, similar to what happens in cholic; to which disease there is a great affinity in causes, symptoms, and cure.

When the surface of the bowels are in this inflamed state, it may be known by the uneasiness produced by stimulants, by pain and bilious discharges during the operation of purgatives; head ache, feverish habit at night, and pain on the increase of warmth by the bed, and frequently by the colour of the face, and state of the tongue. The remedies then should be of the most soothing kind: castor oil, or sedlitz powder, may be used to unload the bowels; abstinence and the lowest diet enjoined; and when the temporary paroxysm has passed off, the tonics should not be of a warm or heating kind: some of the tincture of steel in spirit of sea salt may be used, three or four times a day, and a cold infusion of camomile, or of bark. As this state is constitutional, and returns often, great caution should be used to avoid damp and cold. The gouty diathesis is so like this, that the same remedy may be used for the palliative and radical cure. Perhaps a little more abstinence and exercise would be necessary. In both those cases, small doses of one grain and a half of ipecacuana, with a teaspoonful of magnesia, every two hours, will often regulate the bowels, and with other precautions prevent an attack. On all returns the tonics must be abandoned, and the first set of medicines (the cooling aperients) resorted to.

The numerous cases of the next class, caused by errors and impositions on the organs of digestion, or when the diet has been, as usual, by a paralytic state of the surface, communicated to the primæ viæ, (see No. 4 and 5 of the tables) are in most cases radically curable, provided the patient will lend all his aid to it.

The palliative cure (after removing the causes) is to be as directed for other species; and the radical attempt will, in many cases, admit of more stimulating articles; though it will be necessary to be prudent and sparing. A little old Madeira may be used, and the bitters called compound tincture of bark; the infusion

of angustura is a fine medicine; the preparation of steel may be constantly taken: but with these every means of recreation must be added; for medicine alone cannot effect a cure. Friction, and domestic exercise should be used when the weather prevents a turn out.

The peculiar symptom, called water brash, or puking up a clear liquid, without the sickness, been treated in an empirical way with the oxyde of bismuth, as also with hard cider: from three to nine grains of oxyde may be used, twice a day, in some mucilage, beginning with the smallest dose; the cider must be good sound cider that has become *hard*, (as the farmers term it) and then bottled before it changes to sour. It is, in fact, a low wine. It generally acts a little on the bowels. It has also been used in other cases of dyspepsia.

A tabular view of the different species of dyspepsia:

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| 1 | { | <i>Dyspepsia from organic defects, viz:—</i> Obstructed liver and spleen, diseased pancreas, cancer, or schirrus in the stomach, permanent fistula, organic disease of the uterine organs, and such diseases of many other organs. |
| 2 | { | <i>Dyspepsia from exhaustion, viz:—</i> Hæmorrhage, mucous and purulent discharges, diarrhea, remains of dysentery, suckling too long, broken down constitution, from advanced age, anxiety, grief, and all other causes. |
| 3 | { | <i>Dyspepsia from constitutional causes, acting on the primæ viæ, viz:—</i> Gouty diathesis, inflammatory disposition of the internal coats of the primæ viæ. |
| 4 | { | <i>Dyspepsia from trespassing on the primæ viæ, viz:—</i> Hard drinking, over eating, improper diet, using drugs too freely, interrupting the peristaltic motion of the bowels, by posture in trades, sedentary life, childbearing, corsets, and by allowing of habitual costiveness. |

- 5 { *Dyspepsia from paralysis of the surface, viz:*
 —Dyspepsia of civil officers, and clerks, from
 confinement, from inaction, or fashionable life,
 especially of females.

FLUX (DYSENTERY.)

CAUSES.—These are somewhat obscure; but seem to be nearly the same as what produces summer fever, *i. e.* the effluvia of stagnant waters, acted upon by a hot sun. When the system is thus prepared, a small cold falling on the bowels will produce the disease; local nuisances seem to have the same effect as miasmata when they are near about a house; especially to south and west of it, by which position the summer winds bear the gasses along through the dwelling. The chief local affection is in the mucous membrane of the large bowels.


SYMPTOMS.—Sometimes a fever makes the attack, at other times the bowels are primarily affected, first with costiveness and flatulence, and then with griping and frequent painful efforts to have a passage; when nothing of a natural appearance is discharged. Slime, however, of a white, bloody, or dark appearance comes off in considerable quantity; at other times flux gradually ensues upon what appeared to be only a diarrhea. Dr. Cullen supposed those excrementitious balls, that are formed by contractions of the bowels on retained natural discharges, to be the main source of the pain and disease. This, however, is not always so, since violent and painful cases of dysentery often recur without such scybila. They are, however, aggravating causes, and their discharge is a sure mark that the bowels have yielded to the medicine.

The stomach is frequently much disturbed at the beginning of the disease, but that goes off as the disease moves downwards. It ends in a painful contraction of the orifice of the last gut, called a tenesmus. The operation of each purge, though it brings relief,

is often one of the most excruciating parts of the suffering.

MANAGEMENT.—Great attention must be paid to cleanliness: in the room, in the bedding, and in the chamber furniture; which last must be hurried away, scalded, and sunned, before returning it. When the patient is weak, there must be a bed pan, for he cannot support such incessant rising from his bed. The room should be aired, and sprinkled with chloride of lime. A night gown and socks will be very convenient for the patient.

Rice water, arrow root starch, barley water, gruel, and thin broths, will be the best diet. Slippery elm tea, toast and water, jelly waters, roast apple tea, will make good drinks: or if the patient likes acids, a little cream of tartar may be used. A marmalade of turnips, roasted, and the juice pressed out, has been used in the East Indies, in their worst cases. It is very balsamic.

 In seasons known to produce flux, people should keep their cloth waistcoats buttoned, avoid wet, and eat little fruit.

CURE.—When little or no fever attends, an alternate use of a dose of castor oil, and a dose of calomel, or a combination of them, morning and night, for two days, will nearly cure the disease. But when fever attends, we need not expect such an easy cure. It will be then necessary to take a full bleeding, which may be repeated with some advantage in most cases. Some castor oil must then be given, every four hours, till the bowels are well purged; and we must not desist purging till natural discharges take the place of blood and slime. But an eye should be kept on the fever, for that must be reduced before a cure can be effected. For this purpose, and to lose no time, such articles may be used as will reduce the fever, and open the bowels: one-quarter of an ounce of glauber salts, with one-third of a grain of tartar emetic, may be given every two hours. But as the patient cannot endure so constantly the purgatives, he may use the antimonial powder, in four grain doses, or two grains of ipecacuana, every

two hours, till it be requisite to administer more oil or calomel. This last article does best at the beginning, and should not be used more than once or twice for a purge. When the pain in the abdomen continues; it becomes necessary to put a blister on it. The disease will continue from six to nine days at least; and then end in a tenesmus, which requires warm steam from a pan, or a bath, and injections of starch and laudanum; or if these cannot be given from the great contraction of the bowels; a pill of a few grains of opium may be pushed in after sitting over steam. Should the febrile symptoms linger, blisters on the wrists are to be applied; and when some fair intermissions ensue, decoctions of bark may be given; but this must be watched; for, as Tissot says, it will produce pains in the knees, if given too soon. Small doses of ipecacuana are then of great use, and through every part of this disease, and is the main resort when other medicines can be no further used. It may be used also with opium for the tenesmus. Some physicians prescribe an emetic of ipecacuana in the beginning; and where fever prevails, and the stomach refuses purges, it is highly proper, and indeed after the first purge, it may be used, let the stomach be as it may.

The bowels must not be suffered to get costive after the disease is on the decline, but must be gently moved with a little oil, or rhubarb and magnesia.

In armies, the disease is apt to take on it a low typhus state, which adds greatly to its mortality. The cure is much the same, though the bark and camomile should not be long neglected. Purifying the rooms will be more requisite, and drinks of the acids may be allowed. Dr. Tissot thought that the use of such acid fruit as grapes, would be useful as preventives to those low putrid dysenteries.

☞ Six grains of calomel may be given in a pill, and then a common dose of oil after it; which is more agreeable than extremely large or repeated doses of oil.

Ointments made with opium, ground up with oil or lard, are used to apply to the vent of the bowels, after each discharge, to prevent smarting and irritation.

DIARRHŒA, OR LAX.

The distinguishing characters that divide diarrhea from flux, though not very clear at first, soon become so. The latter being attended with fever, pain, painful discharges of slime, blood and purulent mixtures, containing little or no natural excrements; and when such are discharged, by force of medicine, they are often in hard balls, or cartridges, called scybila. These, by some eminent physicians, have been considered as the chief cause of flux. The disease we term lax, or diarrhea, is known by excessive *natural*, loose, and liquid discharges, though accompanied with much slime and morbid matter, of a green, white, brown, yellow, or blackish colour. There is little pain in diarrhea. Some griping or borborigmus precedes a discharge, which passes easily without a subsequent tenesmus; and fully relieves the patient till another passage is on the way.

CAUSES.—(In youth) the long continued, and excessive use of fruits, ripe or unripe; bolting of their dinners, *i. e.* swallowing their food unchewed, through haste, or great appetite; excessive exercise, followed by imprudent exposure to night air, or cool day breezes, or cold bathing; drinking small beers, and eating cakes, after violent exertions, as in playing ball, bandy, &c. To these, so peculiar to them, may be added, almost all the causes that produce diarrhea in adults.

CAUSES (in adults.) Over eating, using unsound and oily food, as when confined on ship board; certain waters of bad quality; also waters of a medical purging quality;* remaining too long on damp cold ground, without exercise, particularly after exercise, or after being in very warm apartments. Sudden changes of weather, from hot to cool, checking the perspiration, or from cool to hot, when the bile is stirred up, and inflames

* Lime water, waters impregnated with magnesia, or with sulphate of iron and alum, as in some of the districts of Maryland and Virginia.

the bowels. Breaking up of long frosts;* drinking cold water, or any cold beverage whilst too warm; a disturbed state of mind; by which indigestion is first produced, and then diarrhea. Peculiar disorders of the liver and pancreas, by which those glands pour out acrimonious discharges instead of fluids, assisting digestion and animalization: thus being a double cause. Any foreign humours generated within the body, thrown upon the bowels: such as pus and the matter of eruptions. Inflammation of the follicles of the bowels, brought on by excessive strong medicines, or poisons, or by an extension of catarrhal affection. Finally, an hectic state from broken down constitution (as in hot climates) ending their paroxysms of fever on the bowels.

Many of the above causes would cease to act, after a day or two, and the disease cease, but for the debility produced by the first causes, inducing indigestion. This latter becomes a new source; not only so, but there is good reason for believing that those crudites generated in the bowels, in its disordered state, act as a zest, turning all that comes in contact with such contents to a similar, or at least a morbid quality. This seems to be most clearly proved by so many laxes being cured by a simple purgative, with a little prudence and abstinence.

MANAGEMENT.—Milk and water, toast and water, herb teas,† port wine and water, and weak chocolate, are good drinks. A small diet, chosen from preparations of rice, or arrow root; also, mush and milk, eggs, custards, light broths, made of lean meat, or chicken, will be proper; small fish and birds are very good when they can be obtained. Flannels should be used when they can be borne, and thick soled shoes always. Hot suns, damp air, and very cool weather should be avoided; and fires used whenever they are comfortable.

* The breaking up of long frosts, acts by the ground keeping the feet cold, whilst a warm sun is applied to the body; as also by much incarcerated air and filth let loose.

† Mint, sage, hyssop, and baum, are the best.

Salted and smoked meats, beer, cider, cakes, honey, melons, pears, peaches, apples, cherries, roasting ears, and cucumbers, should be banished for one year from the table of a person who has had even two weeks diarrhea. A mattress will be greatly preferable to a bed, especially in summer. The patient should often recline on a sofa, as a perpendicular attitude is very trying to weak bowels. Riding and sailing are almost indispensable.

CURE.—The mere glancing over the causes of this disease will be sufficient to convince any one that a nostrum to cure diarrhea is an absurdity. And it may be observed, that though a patient can do so much towards curing himself, yet he will be very imprudent to tamper with this disease: which must often transcend, in cause and difficulty, all his power of discernment and medical skill.

IN YOUTH.—The restraining them from improper diet and exercise are the first thing; putting them on a rice diet, at first, and then on broths. If the disease continues, a few doses of rhubarb and chalk, going on to astringents, if needful, will be the practice: half of what is directed for a child to take in a day, (see the apothecarium) may be used for a single dose, and taken three or four times a day; the kino preparation, with opium, is the strongest. In laxes, the rule is, *always to begin with the weakest*: as very unpleasant affections sometimes arise when an astringent acts too completely: such as pains, and even dropsies. A youth may take six grains of the kino, with opium, morning and night, which will contain one-quarter of a grain of opium in a dose. When lax succeeds violent exercise, or bathing in cold streams after being heated, there is generally some inflammation. If, therefore, the belly is swollen, or feels painful on pressure, some castor oil must be given; and then three or four small doses of two grains of ipecacuanha; and if the pain and soreness increase, bleeding, and blistering the belly, will be necessary, or leeching, at any rate.

The bed should be the place in such case; for even to walk about the room is imprudent. A tepid bath, after bleeding, will be of service. Astringents must not be used till the inflammation is subdued.

In all other cases, the same remedies are used as for adults; remembering that the more febrile, or the more like flux, the less use must be made of astringents.

IN ADULTS.—Over eating must necessarily be exchanged for moderate eating, and for those simple diets before mentioned; and then a few doses of the mixture of chalk and rhubarb, with some laudanum, will be in general sufficient.

In those necessitous cases on shipboard: the boiling of the unsound meat with a portion of powdered charcoal will be the best plan; and when only fat meat is to be had, the boiling it in small slips, enclosed in balls of meal, (called dumplings) is the best cooking: eating very little or none of the meat. Some medicine may also be used: such as rust of iron and ginger, or other spices: ten grains three times a day, and some port wine, if to be had, will strengthen the stomach: these things are to be had on shipboard most always. Where the water is bad, some lime should be sprinkled in the casks, and the water filtered through a stone, or sand, or powdered charcoal; when no sand is to be had, some bricks or stones may be broken fine, or even sawdust used.

The medical purging qualities of water will sometimes cease by use. For lime water (if the patient is obliged to be on the place) a little vitriolic, or oxalic acid may be added. And when he cannot use the waters of such places, enough may be distilled.*

Where persons are confined to cold, damp, and subterraneous apartments; flannels, fires, thick shoes, and sanding the floor, are necessary, with great attention to a choice of diet. Some ginger tea, and tincture of

* An iron pot, with a thick poplar, or gumwood cover, well fitted, and cemented with clay, or dough, and a tin tube, or old gun barrel, or a reed, will make a still, which will make the water pure.

flakes of iron, with rhubarb bitters, may be useful as preventives, or cure. But when the lax has proceeded from a temporary chill, after being heated, the disease is apt to be more acute, and must be treated with small doses of castor oil, or of rhubarb and magnesia, or small doses of ipecacuana, adding a few drops of laudanum to each dose of ipecacuana, as the disease becomes more chronic. In sudden changes of weather (to cooler;) warm bathing, taking an emetic of ipecacuana, and then using a Dover's powder, every six hours, with confinement to bed, and rice diet, will be a proper course. But if the change be to heat, some castor oil, and then a dose of ipecacuana, will, in general, prepare for small doses of rhubarb and chalk.

The breaking up of long frosts should be guarded against *by staying in doors*, by purifying the rooms, and by wearing very thick shoes and stockings. Small emetics at first, and then doses of rhubarb and chalk, with a little alum or laudanum, will be most suitable. The drinking cold water, &c., when warm, will always be attended with some inflammation, and a dose of castor oil, and small doses of ipecacuana, with a portion of magnesia, must precede some of the most gentle of the astringents. *A disturbed state of the mind* will be best treated by travelling, and by opiates, and a most digestible diet. Dover's powders, every six hours, will be sufficient. The waters of mineral springs, where iron is dissolved in sulphurated hydrogen gas, will be useful: such as Owing's and Hall's springs, near Baltimore: the patient may live on birds, small fish, and rice.

Diarrhea from disorders of the liver may be treated with the blue pill, or Plummer's pill, and the above-mentioned springs; such disorders cannot always be known, but may be conjectured from the colour of the skin and eyes, and the nature of the passages, together with an uneasiness on the right side and shoulder. The affections of the pancreas are still more obscure; only known by dissection. Purulent discharges are more obvious; they are hopeless, unless there can be a cure

of the original affections. However, they may be somewhat restrained by attending to diet, and by opiates, and simple astringents, as kino, alum, galls, &c.*

Laxes from eruptions are scarcely ever troublesome, but in measles; which see. We should not be scared about the sudden disappearance of an eruption, unless it produce some very marked disorder. The warm bath, especially the steam bath, is reckoned the best remedy. Plenty of mucillagenous teas, drank warm, may be used, particularly elm. Sinapisms might sometimes be prudent.

Inflammation of the mucous follicles, known by the mucous discharges, will, in general, whether attended with bilious or catarrhal symptoms, or produced by acrids, have a considerable degree of local inflammation of an obstinate cast: moderate pukes, gentle purges of castor oil, and small doses of ipecacuana, must first lead the way; then blisters, and the more gentle astringents; and, if in summer, with bile, small doses of Plummer's pills will be necessary before coming to astringents; the use of mercurials must be subsequent to evacuants, and afterwards the waters aforementioned, with a strict diet of rice and arrow root. Sweet oil and lettuce has had a good effect in a case somewhat of this kind.

The subjects of those most hopeless cases of broken down (West India) constitutions, are recommended to a better climate, to such waters as abovementioned, and a child-like diet, and some gentle tonics of columbo and tincture of flakes of iron. There are occasionally some cases of diarrhea, of a singular kind, where the person has no other discharges then those that pass off in the morning, as he rises, almost of a lenteric nature. Dr. Calhoun, of Philadelphia, has mentioned quassia as proper for such; perhaps the oil and lettuce,

* Re. galls, five grains, calcined hartshorn, ten grains; to be taken three or four times a day. This is a powerful astringent, and was a favourite of the late eminent Dr. Shaaff, of Annapolis.

Re. logwood, in chips, one handful; flakes of iron the same; cinnamon, one ounce; sound port wine, one gallon; a small wine glass full, three times a day, in chronic cases, is excellent.

in summer, might answer; but when completely lienteric, with a low pulse, old Madeira seems to be the best article; astringents must be also used.*

Blisters on the wrists have interrupted some very long continued diarrheas; and in all febrile associations of long continuance, should never be neglected.

COLIC.

CAUSES.—A sedentary life, costiveness, cold applied to the belly or feet, indigestible food, acrids, acids, astringents; also lead and its preparations: swallowed, inhaled, or applied by friction.

SYMPTOMS.—Pain in the belly, or stomach, though generally about the region of the navel; with obstructed bowels, flatulency, distension, indigestion; and sometimes vomiting of crapula bile, and even excrementitious matter.

MANAGEMENT.—The patient should abstain from all food during the colic; and when the stomach is unsettled, or irritable, abstain from drinks also; as they will certainly excite vomiting, and throw off the medicine. When the stomach is not so irritable, drinks may be allowed. In a full, or strong pulse, nothing more than toast and water, or a little warm baum, or hyssop tea, should be used; but in a feeble, or small pulse, and a flatulent colic, mint tea, or ginger tea, may be used; or a little mint toddy, with calamus, or nutmeg. Beer and cider should be avoided, even when recovered, and for some time after the colic has passed away. The patient ought to remember that the bowels are in a weakened state, and the disease may easily be brought back. Of course the lightest food should be used: such as broths, rice, mush and milk. All fruits and cakes are improper; flannels will be very useful in winter, and a thick pair of stockings and shoes. The bowels must be regularly moved (if sluggish) by purgative

* The case alluded to, where oil and lettuce answered, was a mucous diarrhea, that had this character of forcing the patient in the morning; not much the whole day.

medicines, or enemas. Dr. Sydenham considered riding the most beneficial of all preventives to colic.

CURE.—In the more simple cases of colic, without a disturbed pulse, a dose or two of castor oil, mixed with fifteen drops of peppermint essence, will be sufficient; or a dose of calomel and jalap, or a mixture of salts and magnesia, as may be most convenient; though the oil, as prepared, is to be preferred. But should the bowels not be very costive, and the pains be very pressing, a dose of the ethereal mixture, or of simple paregoric, may precede the purge. Although this plan will succeed in nine cases out of ten that occur, yet there are cases of a far more serious nature, that depend on an obstinate spasm, a fixed inflammation; or on a permanent or organic obstruction. When the pulse is full, or even hard, we may expect some degree of inflammation, and must use the lancet once or twice, taking away blood in proportion to the symptoms, and the habit and constitution of the patient. A blister must also be laid on the abdomen after bathing the belly in warm water, with a large flat sponge, keeping blankets over the whole body. If the feet are disposed to be cold, they may be immersed at the same time, and kept warm afterwards with bladders filled with very warm water, or with warm bricks. The purges should not be delayed whilst the above means are applied, for few cases give way till the bowels are cleared out. No peppermint, or other warm heating medicine, should be given when inflammation is suspected, or the pulse full, or even small and hard. The pure castor oil is one of the best purges; and dose after dose must be given every hour till it produces a full operation. It is, however, a great error when the stomach is irritated to attempt to give large doses of medicine, or even a whole dose at once. They should be divided, and repeated every half hour till the effect is produced; assisting the purgations with large enemas, frequently injected. But in some instances every article of taste, or bulk, will be rejected; in such cases the medicine must be made up very

small into a pill form, and given every quarter of an hour, or half hour, as the stomach will bear it: *abstaining from all drinks*. One grain of calomel, and one of aloes, may be formed into a pill, with the pulp of a rasin, and given as above from ten to fifteen times; thus using four to eight hours to take a purge. In the meantime bathing the abdomen in warm water, or rubbing it gently with the hand smeared with warm sweet oil, and giving enemata. But should this not succeed, we should instantly rub the blistered part with one or two drachms of mercurial ointment, every two or three hours, and at the same time give two grains of opium and fifteen grains of calomel, which may be repeated in four hours, if needed. A salivation will be the surest relief. All this is supposing an inflammation to exist, marked by the pulse; and that full use has been made of the lancet. In colics, merely spasmodic or flatulent, with small, though quick pulse, we may omit bleeding; nevertheless, they are sometimes of a most desperate nature, and more painful than the inflammatory species. In such cases we may use the ethereal mixture at first, and even increase the quantity of laudanum, but there must be no delay in purging; nor must it be omitted, though the relief be never so complete. Sinapisms may be immediately applied to the stomach. The bathing must be used, and a little mustard put into the water in which the feet are to be bathed, to give them a permanent circulation. Enemata are also to be freely injected. One-quarter of an ounce of soap scraped fine, and rubbed in a mortar, with a little water first, and then added to a quart of water, makes a clean and good clyster. The pulse always rises in flatulent colics, when the patient is about getting better; and becomes soft and slow in inflammatory colic, before relief.*

* It is highly probable, that the exhausting pump might be usefully applied to the bowels in severe flatulent colic, or even a syringe, with a long elastic pipe, used the same way.

BILIOUS COLIC.

In some cases of this species of colic, the bile is discharged upwards with difficulty, though with relief. In such cases some camomile tea may be given warm, to promote a more free and speedier discharge; and then we may proceed to give calomel and jalap; say five grains of each, every hour, till the bowels are moved, using enemas and warm bathing in the meantime. But in far the greater number of cases, the vomiting is copious and troublesome, exhausting the patient. The latter is more especially the case in the southern or in the middle states, and in summer. It will therefore be necessary to restrain it by the saline mixture, in fermentation.* It will be prudent also to remove what irritation or inflammation may exist, by a blister to the stomach, and then to try the calomel and aloes, in doses of one grain each, in pill form, (refusing all drinks) one every quarter of an hour, till fifteen pills or more are taken, and retained; using enemas frequently. Should those remedies fail, the opiate and calomel, as directed in the common colic, and rubbing the blister with mercurial ointment, must be resorted to. There are, no doubt, many cases of bilious colic, in strong constitutions, that require bleeding; and there are very few cases but what leeching, or cupping, would be judicious; but it is seldom practicable to use these last in such a restless state of the patient; and, indeed, when vomiting is so troublesome, the blisters are so much displaced, that it will be sometimes necessary to choose some other part than the belly to apply them. The inside of the thighs will be most suitable, and though not so topical, will still be of great benefit. When the mercury begins to have effect, the bowels are easily moved; and constant trials must be made to ascertain when the stomach will bear castor oil, or senna and manna, or jalap and magnesia.

* See the apothecarium.

CRAMP COLIC.

This is one of the most severe species of colic. It often strikes upwards into the muscles and bones of the breast, affecting the abdomen also. It will make this appear like as if it was corded with ropes.

CURE.—Purging will sometimes come too late; and, therefore, we must instantly use ether and laudanum freely, till some abatement, and then purge. A sinapism may also be laid over the affected parts without delay, and the warm bath applied to the feet, and with sponges to the parts pained. Thirty drops of laudanum, and as much, or twice as much ether, (diluted with spirit) may be given in a wine glass full of toddy, every half hour, till relief is obtained. Purging must then be resorted to, with oil, or calomel and jalap, or magnesia and salts. The wearing of flannel next to the skin, and a regular abstemious life, will prevent returns. There are instances of its being epidemic. It is very nearly allied to some cases of angina pectoris.

ILLIAC PASSION.

This is one of the most frightful species of colic, arising from some fixed obstructions in the bowels. The peristaltic motion is stopped, or arrested; and the contents of the bowels are brought upwards. Whether those obstructions are formed during the cholic, a little before, or are the remains of former diseases, is uncertain. If the latter, they can scarcely be removed; and the cholic will often return, and finally prove fatal.

CURE.—Bleeding, blistering, bathing, frictions with oil, and the free use of enemas: even to two gallons, says Dr. Thomas, are necessary. An opiate injected into the bowels will sometimes relieve the vomiting for a while. Every attempt, however, should be made by opiates and calomel combined, as before directed, to get a passage through the obstructed parts, which must depend chiefly on liquifying the contents of the

bowels. Salivation should be speedily aimed at by every means. Though it will come too late in most cases, and cannot remove old chronic obstructions. Our old practitioners gave, in some cases, an ounce (by measure) of quicksilver, repeating the dose; and whatever may be its action, we know not; but the best authority may be brought to prove its utility, which is enough for the suffering patient. There is but a small line of difference between this species and strangulated hernia, though the cure is quite different.

PAINTERS' COLIC.

This species is known by its affecting persons engaged in mining of lead, making its preparations, or using them in painting. It has occasionally been endemic, by persons using glazed jugs, of black pottery, to put their cider and pickles in; as also by drinking of rain water from roofs of houses where lead has been used, and dissolved by the leaves of trees suffered to ferment in the gutters. Families should therefore be very careful, when the complaint appears general, to examine every thing that might become impregnated. Soldiers have been known to have the disease by merely rubbing dry white lead on their belts. This disease is also known by its symptoms, which in addition to what happens in other species, is accompanied with an hysteric affection about the throat, and a rapid disposition to paralysis. Although common house painters use so much more lead than landscape painters, yet the latter, from being obliged often to work in close rooms, do not escape. It would be well for painters to pay great attention to get all the air they can allow, and to wash their hands before eating, and to wear gloves. Perhaps the use of tin handles to their brushes, which admit of such nice and easy cleaning, two or three times a day, might prevent much of the mischief. Miners are said to be partially benefitted by eating a piece of fat meat before entering on their work. The painters' colic, in its first attack, is cer-

tainly inflammatory, and will often require bleeding, and always strong purges: the oil may have calomel mixed with it; and when the disease becomes more paralytic, an addition of a teaspoonful of spirit of turpentine to each dose of oil and calomel, will augment its purgative quality. Frictions, bathing, enemas, and snapisms, may be used, as in other species.

Some physicians have made out a species of *nervous colic*, but it is probable, if it is not connected with *painters' colic*, that it more properly belongs to dyspepsia. In colics from acids and poisons, the articles should be vomited and purged off, and also counteracted instantly by proper neutralizing medicines. See the chapter on accidental diseases.

OBSTIPATIO, OR COSTIVENESS.

This is often a symptom of fever, and of many other diseases; and then it must be treated as a part of such disease. But there are numerous painful and dangerous cases that are unconnected with any other general disease, that appear rather to produce inflammation and fever, than to be a consequence: of such only, this chapter will take notice

CAUSES.—A sedentary life, pregnancy, riding, or sailing for a length of time, obstructions in the liver and spleen, or actual obstructions along the course of the bowels; certain kinds of ingesta: such as cheese, raspberries, and astringent vegetables. Water impregnated with iron, dissolved in sulphurated hydrogen gas, as in certain springs. Diminished secretions in the bowels from over study, and neglect of a regular attention to the calls of nature.

SYMPTOMS.—After the proper time for having a natural discharge is past, the bowels become uneasy, then painful; the stomach becomes sick; vomiting ensues, and the most distressing pains, with swelling of the

☞ All colics require to be followed with a brisk purge, says Dr. Cullen, to prevent returns; and when people are subject to it from a costive habit and weak bowels, they had best use (for two or three weeks) a tincture of rhubarb and gentian. See the apothecarium.

abdomen, and fever come on. The feet grow cold, and hiccup ensues; the pain then ceases, and in a few hours death closes the scene.

Vast numbers of persons die this way, merely from self neglect, or not keeping a box of laxative pills in their bed room. It may seem trifling to tell a patient how to take a pill, yet there are many grown persons who cannot, for want of a little instruction; and of course they neglect a remedy that may save life. The task of taking nauseous medicine, in other than pill form, is a great barrier to taking what is needful.

When a pill is to be taken, the patient should remember how he swallows his food, particularly the position of his head: he leans his mouth a little *below* a horizontal line towards his plate; but give him a pill and he will open his mouth wide, and hold it up to the clouds, as if he were trying to catch in his teeth a ball thrown up. Now, how widely different are those attitudes. In the next place he will throw the pill into his fauces, to get it over his tongue, and thus either choke himself, or get a fit of coughing. Let him follow these plain directions: put the pill near the extreme end of the tongue, making the tongue a little concave, and then taking a glass of water, drink it freely and fast, without raising his head more than when he drinks his tea, and he cannot prevent the pill going down; for then the throat is open to receive it; whereas, in all the absurd positions before mentioned, it is actually closed.

The author has been told that horses have been strangled, by ignorant farriers holding their heads much above a horizontal, to get down liquid medicines.

Where persons are habitually costive, they should be furnished with some very gentle (and, if possible, pleasant) medicine, to take frequently; mercurials and aloetics, cannot well be taken frequently; though they may be used when disease begins. The pleasant remedies are few: the preserved white walnuts are eaten by European ladies; powdered senna, beat up with figs, or with sultana raisins, are a good and

pleasant article; magnesia, with a very little jalap, and some syrup, is a good medicine; sulphur, and cream of tartar, and many other preparations, are in use. Perhaps the whole of them might be advantageously superceded by enemas of cold water, taken daily, from an elastic bag and screw pipe, or other apparatus.

When the patient finds that the disease is getting a head, by the increase of pains in the abdomen, no farther time must be lost: all drinks must be avoided, and the patient may begin with one grain of aloes and two of calomel, every half hour, not fearing a salivation; as that will generally remove the disease. The patient, after taking from ten to twelve pills, may sit in warm water for one hour, having his body well protected; the water should cover his navel, at least. When removed, a blister may be put on the belly, and in all cases some blood should be drawn from the arm. If the vomiting has commenced, and the pills cannot be retained, some calomel powder may still be thrown in;* and mercurial ointment should be freely rubbed in on the thighs, and on the blistered parts. Should the symptoms not be so dangerous, and the stomach quite firm, there is no medicine more certain than jalap and blue vitriol: five grains of the former and one and a half of the latter, or even one grain every half hour, with a sponging of the belly, and a good stimulating enema, of soft soap and water, will generally answer. Spirit of turpentine has been used, by some physicians, with success: a teaspoonful may be given every two hours, in broth. Charcoal, in large quantities, has also been used; but such things should never take the place of those above mentioned. In those cases of ster-coracious vomiting, where there is a temporary obstruction, called an intorsusception, or one bowel slipping inside of another, (as the finger of a glove will;) bleeding, blistering, and salivation, seem more essential. In former times quicksilver was prescribed, and it is still

* After each vomiting, three or four grains of calomel may be put on the tongue and swallowed, till twenty-five or thirty grains have been used.

a remedy with some first rate old physicians. And, however difficult it may be to conceive how it should even get along itself, independent of pushing on the contents of the bowels; yet the high authority of some modern names, makes it worthy of trial, far before charcoal, which can only act as a piston, in the tube. Where the obstructions are permanent (as interosusceptions frequently are) there is great difficulty: for to take medicine daily irritates the bowels, and brings on fever. The best plan, in the author's opinion, is to give small doses of ipecacuana, or of antimonials, and then to move them on by an enema. Some obstructions may be very low down at times, and in such cases a long elastic bougee, introduced for half an hour, might press them, and give a better vent. Examinations should always be made: contractions, tumours, stones, and fruit nuts, have been found fixed in various parts of the bowels. The injections of tobacco smoke have been used in many instances; but they upset the stomach, and produce such faintings that they should not be used early in the disease; and are dangerous late in the disease. Obstructions in the liver and spleen produce an habitual costiveness. Those articles that obstruct the bowels should be avoided; and such made use of as have an opposite tendency: very coarse bread, made with a portion of bran, and rye bread, are said to be aperient; molasses and mush would therefore be a good dish. The waters of certain springs become valuable medicines when they loosen the bowels.

There has been instances of the seed of raspberries accumulating in the rectum, so as to stop all passages, and requiring to be taken out with a blunt hook.

The dashing on of cold water has been recommended in some extreme cases; but it is somewhat hazardous. The author, though he has never tried the experiment, yet has it in store to use the following simple experiment when he has a case needing it, viz. to introduce into the bowels a stomach pump, or an elastic tube, fastened *air tight*, to a large well fixed

syringe, and use it to exhaust the bowels of air; hoping by thus displacing a volume of air from the rectum, it will be filled up by some of the incarcerated air from above; the effect of which would be not only to lessen the pain and distension of the bowels, but also to start the *fœces* from their lodgment. This might also be used in simple flatulent colic. It might be used by any expert person, taking care to act very slowly in drawing the piston, and *turning* the syringe round, so that the operator might be sure not to draw in a portion of the bowel. The tube should have two oblong side apertures, beside the end one, that when one might get stopped the air would enter the other.

It is hoped that some physician, seeing or hearing of this, will make a fair trial. In bad cases of colic and constipation, the hardened contents of the bowels are generally separated by portions of wind between each; and if this gas could be extracted, the *fœces* would begin to move, and making a junction, would then act more naturally for their own expulsion.

PILES, OR HÆMORRHOIDS.

CAUSES.—These are either constitutional, or accidental, and may proceed from a relaxed state of the end of the last gut, or from the denial of a free circulation, by which a determination is given to that part. This is always helped on by particular circumstances: as costiveness, position of the body, either too much sitting or standing; strong and irritating purges, high living and stimulating diet, hard riding, &c. The state of the system that gives rise to hæmorrhoids are obstructed viscera: particularly of the liver and spleen; obesity, pregnancy, and the torpid and relaxed state of the bowels, produced by dyspepsia and grief.

SYMPTOMS.—Discharges of mucous, or blood; small round tumours, more or less hard, single, or together, about the verge of the bowels; at other times a mere tumified ring.—These are attended at first with little inconvenience; but after a while increase, and produce

head ache, disordered stomach, pain in the loins, and pains in having discharges. They will at first be occasional, coming on after a cold, or some intemperance, or costiveness, but will in many instances become permanent, with occasional states of inflammation, pain and intumescence of great magnitude, and some danger.

They will sometimes discharge large quantities of blood, and weaken, as well as alarm the patient. Such will be the size of some tumours that they will obstruct the passage of the gut, and make a discharge (of any solidity) a fearful one. They sometimes occupy a place a little up the bowels, and when large, and pushed down by straining, may be so constricted, by the irritation on the sphincter, or constricting muscle of the gut, as to become strangulated, and demand immediate relief. A very general inflammatory state, with high fever, ending in suppuration, will sometimes ensue; and fistulas have been left in consequence.

The tumours appear to take on two different states: one compressible, as if filled with fluids, something approaching to a varicose state; and at others, be so hard and solid as even to be difficult to enter with a common lancet. The various states have been the source of much discrepancy in the opinions of physicians.

MANAGEMENT.—When the patient has lived freely, or is in good plight; abstinence, and rest in a horizontal position, on a sofa, or matrass, are necessary. To those, as well as such who are temperate, a diet of rice, barley, gruel, puddings, and such things, with cooling drinks of cream of tartar and water, molasses and water, &c., will be needful.

The greatest attention is necessary to remove every exciting cause, especially that of costiveness and confinement to any one position.

CURE.—When the discharges of blood are moderate, and produce relief to other disorders, or if the patient be of an apoplectic constitution, it will be advisable not to interfere with the discharge; but to live mode-


rately, remain quiet, and to keep the bowels open by proper medicines; and this may be sufficient for most of the common cases. And should such return frequently, every means of prevention should be used. The use of injections of cold water is one of the most effectual means; bracing the parts, cooling them, and removing the first state of inflammation, as also preventing costiveness. Internal medicines, such as cream of tartar and sulphur, mixed into an electuary with honey or molasses, are in great estimation; but no purgatives should be used very frequently. The cold water injections may substitute them. The water made quite cold will also check the hæmorrhages when depending on local causes; but should that not be sufficient alone, some alum may be added. See the apothecarium.

As those more common cases are often painful, some remedy is necessary. Nothing is more effectual, than the application of the ointment of galls and opium. But when they are a little up the gut, a suppository, by giving them a due pressure, will be needful. The end of a small dip candle may be used, smeared with the gall ointment. A suppository of alum candy of the same size, made with a double portion of alum, may also be used; and in tedious discharges of blood, it will be an useful application. There are cases, where the discharges of blood continue from obstructions; and when from the liver, small doses of calomel are effectual. There are chronic cases of piles, and perhaps others, where there is more relaxation than inflammation; in which certain stimulants are used with success. The one used by Dr. Cullen, was fifteen or twenty drops of balsam copaiva, twice or thrice a day, on a lump of porous loaf sugar; and it certainly has been of use, but may do harm, when there is an inflammatory state existing.

In such cases as are attended with high fever, great pain, and threatening suppuration, in a full habit, repeated bleeding, with cooling purges; such as sedlitz powders, can alone prevent a disagreeable issue.

When the piles become strangulated, bleeding, and

local applications of leeches, with long applications of a tepid bath, are necessary, to reduce them; and when those tumours become large and habitual, so as to impede the passages, they should always, when they prolapse, be carefully and tenderly pushed back again; and an emollient tepid enema, in all cases, be used before an attempt to evacuate the bowels. When things get to this lamentable state, it is necessary to consult a prudent surgeon about extirpating them with ligature, or knife. No compressible piles will much need this operation; and if it did, would be more dangerous; and even when they are of the hard tuberculous nature, an examination must be made into the state of the bowel, above and about the piles: for if that be varicore, or any way diseased, there will be a hazard in the operation; and the patient should abandon all to a palliative treatment, and great prudence.

 See the apothecarium for gall ointment and alum candy.

DIABETES, (EXHAUSTING DISCHARGE OF URINE.)

Both the predisposing and exciting causes of this disease remain in some obscurity; and as yet, physicians have not even agreed on the seat of the disease.

It was, however, a disease well known to the ancients. There seems to be in some patients a previously disordered state of the system. Many have contracted this condition by intemperance, and others by a dyspeptic state. In both cases, inflammation is often present; and the disease (diabetes) is most usual at that period of life which abounds with inflammatory disorders, viz. from youth to middle age.

Some have supposed diabetes to be a disorder of the digestive organs, or stomach. Others have insisted on its being a deranged state of the kidneys. Some theorists have placed it among inflammatory disorders; others among those of debility; whilst a third set have considered it as a nervous derangement, more especially afflicting the organs concerned.

Galen supposed it a dropsical affection; which, at that day, was ranked as a disease of debility. Dr. Gregory adopts Galen's idea: but neither of them give any good reason, or even attempt to trace the location and course of the waters. Can there be a dropsy without a receptacle? and if not, where is the receptacle? The author of this paper adopts Galen's crude idea, but with some reason and specification. He considers it a dropsy of the surface of the *primæ viæ*; or perhaps of parts so near, and so united to it, that the water bursts into it, and makes the bowels the place of deposit, or receptacle. This water not being of a purgative quality, nor mixed with bile, is absorbed as common drink is, and then thrown off by urine.* Various circumstances may cause the chyle to be dissolved or not, by these waters, or to be more or less perfect, and of course the urine to be sweet or insipid.

The author grounds his theory on two facts, to which he has been an eye witness: one is, that patients with diabetes, when taking an emetic, will, in some cases, throw off from the stomach a quantity of fluids far exceeding all the fluid ingesta of the day; and then the excessive discharge of urine will abate in proportion. The other fact is, that horses who are subject to this disease, when dissected, discover their bowels to be loaded with water. As this discovery is a new and interesting fact, the author will introduce a case that happened on his own farm. After a severe ride, on an excessive close and hot day, the horse was perceived to be over exercised; and was kept from drink some hours, least he should be foundered. In a day or two, during which time he was drooping, the urine began to flow most abundantly, so that he had to be removed to an open stable. From the quantity of water thrown out, it would appear that he discharged from five to eight times the quantity he drank. As the

* It is more than probable, that some of our chronic diarrheas are near of a kin to this: but the bile, or some restriction on the kidneys, throws it off by the bowels.

causes of the disease were evidently such as would induce inflammation, he was bled three times very copiously, in as many days; and with this, castor oil and nitre were given him. By this treatment he so far recovered, that in two weeks he was imprudently put, for half an hour, to the plough; which brought all the symptoms back. The remedies had no farther effect: the horse grew weak, eat nothing, was taken with tremors, and died in about three weeks from the attack. On dissection, his bowels were found loaded with water; indeed, very little more could have been injected into them. What is remarkable, his passages were nearly natural, from first to last.

Although this disease was so short and acute, there can be no hesitation in pronouncing it a true diabetes; and the remote causes and the proximate causes perfectly plain, viz: over exercise and heat, producing inflammation, and an extra exudation of waters, either from the surface of the *primæ viæ*, or so near to them as to find its way there, and then to the kidneys. If there could be an opening made from any dropsical cavity to the bowels, the disease would certainly be changed to a diabetes; or if an elastic tube could be inserted sufficiently far up the bowels, the water would pass off that way, and the disease turn to diarrhea.

SYMPTOMS.—An excessive discharge of urine, day and night; often sweet to the taste, and affording, on evaporation, a spongy sweet mass, of about one ounce, for every twenty-four hours. The urine far exceeds all the fluids used; and is generally from twelve to twenty pints per twenty-four hours. The appetite is often good, the bowels rather inclined to costiveness. Debility and dyspepsia are much complained of. When the stomach has been relieved by an emetic, the appetite becomes enormous, and the urine abates; and if the patient is not restrained, he will eat and drink till he needs another puke to relieve the oppression. After some months the ankles swell, the patient complains of pains in the loins; and a hectic, with dejected spirits, continue till death.

MANAGEMENT.—The use of the lightest and most digestible *animal* food has been the practice since Dr. Rollo's theory has been introduced. But a total abstinence from vegetables can scarcely be accomplished; neither is it necessary: a milk diet, with rice and mush, are probably as suitable as any. According to Dr. Rollo's scale of injury from vegetables, wheat bread is one of the worst articles. His scale of articles is as follows: bread, potatoes, onions, leeks, radishes, turnips, spinach, carrots, peas, brocoli, and cauliflower; the last being the least offensive. But the doctor's theory is nearly overturned by his confession, that parsnips (which yield the most sugar of any) are one of the most inoffensive. It would also appear by his experiment, that, in general, the most nourishing articles were the most injurious; which is greatly in favour of a sthenic theory.

CURE.—Before Dr. Rollo's theory, (of using only such articles as produce little or no sugar,) the invigorating plan was in general use. Sydenham directed wine and meats with this view. Some physicians, however, induced by the bad success of Sydenham's practice, tried an opposite plan, prescribing bleeding, blistering, emetics, &c.; others again, prescribed for nervous derangement, or played the quack, with opiates, camphor, mercury, phosphates, and mineral waters. And it is a fact, that some few appear to have been cured by each plan; but these were few indeed, compared to the number uncured, and injured by a random practice.

At present, Dr. Rollo's and the opiate plan are most usual in Europe. The prescriber must, therefore, make up his mind, and judge which of those plans are most rational, (for none are really successful) and prescribe accordingly. But should he adopt the ideas of the author of this paper, his plans of cure must be analogous to those for the varieties of dropsy.—And it will be well for him to read the section on dropsies. He will have to admit, as in dropsy, that inflammation, relaxation, and perverted actions, are all

to be contemplated, and their degree and existence traced out, before he can give his remedies with any certainty.

With this view, he must consider every recent case, where the constitution appears pretty firm; (and more especially where the patient has used such means as induce inflammation) as an inflammatory stage; nor must he exclude dyspeptic patients from this stage: for those who eat much, and exercise little, will be inflammatory under any disease. Nor must he listen to complaints of debility; but, on the contrary, judge by the pulse, and other circumstances between the feelings of the patient and the state of the disease. He will, however, have to remember, that this stage will, as in other dropsies, pass to one of relaxation. And also, that in some cases the inflammatory stage, or state of the patient, might have nearly or quite exhausted itself before the diabetes ensued. All this is analogous to other dropsies.

The cure, therefore, if this theory be correct, will be to bleed and purge moderately at first, and then proceed to emetics, alteratives, neutral salts, and blisters. When relaxation is established, he may safely try opiates and astringents. Perhaps a routine of such articles as are known to have arrested the waters, will be judicious on the decline of the first stage, viz. emetics one day, an opiate the next, and then blisters. Castor oil and salts will be good purges, ipecacuana and blue vitriol a good puke, ipecacuana and squills, good alteratives, Dover's powder and Japonic confection, good opiates. If mercury is used, it should be when the propriety of bleeding is doubtful.

DISEASES OF THE LIVER, SPLEEN, AND URINARY ORGANS.

CHAPTER VIII.

HEPATITIS, AND OBSTRUCTIONS OF THE LIVER.

THIS section will comprehend acute and chronic inflammations; also simple enlargements, with indurations of that organ.

Nothing but some practical distinctions can be made between the great body of the above named affections. Thus, the liver will be found diseased, with a *high* degree of inflammation and fever, ending generally (when not opposed) with an extensive suppuration; and that in the course of a short time: from two to four weeks in general. Again, there will be inflammatory affections, *more chronic*, with less fever and pain than the former, or perhaps not more than is experienced in phthisical diseases (for which this disease generally passes) ending after a much longer time in partial suppurations, ulcers, and simple soft enlargements, or in tubercles, hydatids, honey-comb excavations, and excrescences of various kinds, most of which are formed, and go on perhaps unknown, till death and dissection have exposed them. There will be also diminutions and enlargements, with indurations; and finally corrosions by worms.* Most of which latter varieties are without febrile symptoms.

CAUSES.—Injuries: such as blows and falls; violent passions, cold in quick succession after heat, hard drinking, especially in bilious countries (which is called

* The author had in his possession a liver, prepared by the late Dr. A. Wiesinthal, which had a worm (*lumbrici*) fifteen inches long, passing twice through the solid liver.

living above the ague!) great irregularities; turning night into day, which is one of the greatest sources of disease to all the large viscera. The improper use of Peruvian bark in the beginning of fevers, and the neglect of curing such fevers, particularly intermittent, speedily. Inflammations in the adjacent viscera, particularly dysenteric and pulmonic inflammations.

The effects of heat in disordering the liver, is equal to cold, inflicting disease on the lungs and muscles. The great prevalence of hepatitis in warm countries, and its seldom appearing with us but in summer, is in full proof of this.


SYMPTOMS.--In the most acute cases there will be much pain in the right side, shooting up to the shoulder, and up to the back; a sort of numbness in the right arm; often an inability to lay on the left side, and some dyspnoea. The tongue will be white at first, and then yellow, or brown; the eyes of a reddish yellow mixture; the pulse full and hard, with intermissions in some cases. If rigors come on, and the pains remain unabated, suppuration will ensue. The matter will reach the bowels, or burst through the ribs, or be evacuated into the thorax, or abdomen. In these two last it may be considered certain death. When the matter has burst, or been let out between the ribs, the place will continue to discharge in most cases for a long time, even years, and then heal; but a month or two is the shortest time that may be expected.

In the more *chronic inflammations* there will be a weight and pain, on pressure, at the region of the liver; and diarrhea or costiveness will attend. A cough, that will often pass for consumption, will harass the patient. Vertigo is sometimes a troublesome companion.* Long spells of hiccup are usual. More or less discolouration of the eyes and countenance happen in many cases; whilst in others there is no appearance of a bilious

* A gentleman, who had an enlargement of the liver, with accelerated strong pulse, was very much troubled with vertigo; taking a ride, he found it went off; and he followed the custom for many months, merely to get rid of the vertigo.

tinge. Emaciation is a frequent symptom. The pulse is always accelerated at first, without any material remission; but after some time puts on the hectic character. Indigestion and hypochondriacal symptoms will afflict some. In fine, there will be much variety in the different cases, and no one set of symptoms will be constant in all cases. Dropsical swellings, apoplexy, piles, and hæmorrhages, will ensue in different cases. The affections of the liver, of this stamp, will last a long while in many instances; so that other diseases sometimes carry off the patient. There is much insidiousness in these affections: some getting on very rapidly, whilst others seem never to come to an issue. It may be generally distinguished from consumption, says Dr. Gregory, by pain in the hepatitis, preceding cough; and by the patient's ability to draw a long breath, so as to give pain, without certainly exciting a cough; which never would fail in an inflammation of the lungs. There is sometimes in this species of hepatitis, a disposition in the face to a swollen appearance, whereas, in the following one, which we are about to describe, the swarthy skin seems often to adhere to the bones, and to give a firm hard countenance. But it must be confessed, that there are no certain marks in the countenance. In the next variety, that is, chronic hepatitis *without* inflammation or fever; the hardness of the liver may generally be felt without pain, and an increased size be ascertained. The bowels are costive to a great extent, the digestive powers are bad, the mind mostly dejected, the piles and epistaxis are common companions, and so is an enlarged spleen; the eyes are sometimes bilious; the patient often complains of his shoulder; the gums are sometimes very firm, and the patient has generally a great insensibility to the mercurial action. Black haired swarthy people are said to be more subject to it than fair light haired persons. Females suffering under such large obstructions of liver, have, nevertheless, borne children, and done well.

There are no reasons for supposing enlargements of

the liver and spleen are altogether the effects of intermittent fever, though they are in part. They are probably included, and affected to a certain degree, in the original attack; made by marsh effluvia, or a certain combination of heat and *effæte* water, *i. e.* water that has transuded plants, or percolated mud, and lost its vivacity.  See Hale and Wildenow on those points, relative to such water, viz. its easy corruption, and injuriousness to other plants that absorb it.

CURE.—The indications of cure are built on the degree of acuteness of the affection, and the time it has existed, in the two first varieties of hepatitis. And in the third, *i. e.* those without fever, merely on the time of its existence. In such cases as are attended with much pain, high fever, white dry tongue, we may expect suppuration if the disease is not directly arrested: to prevent this, bleeding freely is the first operation, and after a second bleeding, a large blister must be applied over the side. The bowels must be well attended to from the first day, by a free purging: one ounce of salts, and a grain of tartar emetic, will be a suitable one the first day, and afterwards the same quantity may be given, in divided doses. Castor oil, or jalap and calomel, may be used for a change. On such days as the bowels are very free, some of the powders of nitre and antimony may be used instead of purging. A second blister will often be necessary. Drinks of lemonade, and a diet of rice, barley, &c., will be proper. If the pains, dyspnœa and fever continue unabated, and rigors ensue, in spite of all this treatment, suppuration may be expected. After a full use of bleeding, purging, &c., as directed above; then, and not sooner, we may venture to introduce some calomel, in the form of Plummer's pills, morning and night; but if the anti-phlogistic plan is gaining upon the disease, the mercury had best be delayed as long as possible; though it is said, that in the West Indies it may be given in three or four days at farthest. Perhaps the rapid progress to a state of debility, and their constitutional relaxation, may justify it there; but here,

in our middle and northern states, it would certainly establish an additional degree of inflammation, whilst the pulse is up. This doctrine cannot be controverted by *observant* practitioners.

When the matter is forming, nothing but merely regulating the system, and supporting the strength for the crisis, can be done. Should the matter point between the ribs, it cannot be operated on too soon. Some tonics will then be necessary: such as a decoction of bark. The diet should be such as would suit infants at first, and then increased in strength and quantity, as the exhaustion of the patient may require.

In the next degree of hepatitis, *i. e.* where there is some fever but not severe pain, or no pain except on pressure; when the patient can generally walk about; where the system is much disturbed, and the countenance, with other symptoms, assure us of an affection of the liver; (which will probably fix some chronic affection on the diseased organ: such as before stated, *viz.* partial suppurations, ulcers, tubercles, enlargements, &c.;) we must examine well into the time and circumstances. If the feverishness has continued without much change; if the symptoms have been steady, except in mere increase and decrease, we may expect that those organic affections are not fully established. But on the contrary, if the disease has continued long, and the patient has marked a new set of symptoms; especially if the fever has become hectic, (which see) we may expect that those harpies have fixed on the liver. These two states will require full attention. In the first, bleeding moderately and repeatedly, every few days; blistering, and then tartar plasters, or tartar frictions, will be requisite. The bowels must be constantly acted on; though not so briskly as in the most acute cases before mentioned. If the bowels are loose, alteratives must be used: such as two grain doses of ipecacuana, four times a day; and if not, the antimonials and nitre may be used on such days as the purges are not. We may also be less careful about the time of giving mercury. It should be introduced after the

above antiphlogistic remedies have been used a week. Plummer's pills, given every night and morning, till some effect is produced, will be proper; unless the bowels are loose (and they should not be checked;) in such case, a drachm of strong mercurial ointment may be used every night on the groins.

It would be well for the patient to go by water to a more temperate and dry clime. His diet and drinks must be moderate, and of the mildest kind, nearly altogether vegetable.

In the second stage, *i. e.* when there are hectic symptoms, not much can be expected from medicine; a change of climate to a cool dry country, and the use of chalybeate sulphur springs, that have an aperient quality, as those of Virginia, and York, in Pennsylvania, may have a good effect. The blue pills should have a trial, using them for a week, and then desisting and recommencing after a time. Mush and milk, goats' milk, and rice, will be proper for diet; and sailing and riding on good roads, and in carriages, may be constantly practised.

Dissections have shown that affections of the liver associate with a large number of diseases; and such as could never be supposed, were it not for the knife exposing them: such as low fevers, affections of the brain, diseases of the ovaria, &c., besides those more closely connected with the parts: as dysentery, lax cholera morbus, consumption, and diseases of the heart. It is, in fact, an organ that is easily injured and hard to cure.

In the third, or last grade of hepatitis, *i. e.* where there are no febrile symptoms, nor pain on pressing the region of the liver, though often an evident hardness and enlargement exists, there may be some hope of a radical cure; provided that the affection is of recent date, or only a companion of chills and fevers. A course of Plummer's pills, and a removal to a healthy, upland, dry country, using the natural sulphur waters: such as the sweet springs of Virginia, will often effect a cure. But, after a certain standing, say a year or more, and

the subject an adult, or aged, all that can be expected is to palliate the inconveniences arising from it. The bowels should be regularly moved by pills of calomel and aloes: one or two of these will act on the bowels, which are not to be *purged*, but merely set in good peristaltic motion. Once in a while, in bilious seasons, it will be well to take the blue pill for a week, and then desist. When piles are troublesome, sulphur and cream of tartar, and senna and figs, are more proper aperients. A few assafœtida pills must be kept for low spirits. Travelling is always beneficial; and great attention must be paid to what is eaten: as flatulence, even by mere pressure, will greatly annoy the patient. All such patients should travel annually to the York, or, if possible, to the sweet springs of Virginia, where there are fine sulphur and other springs, warm and cool.

JAUNDICE.

This disease most probably depends on the obstruction of the biliary ducts, that carry the bile from the liver, where it is secreted, to the intestines. This is conjectured from the absence of bile in the fecal discharges, and its presence in the urine; as also from the universal tinge of bile over the whole surface; more particularly, and first noticed in the white of the eyes. The causes of this obstruction are said to be spasms in the duct, communicated from the stomach; concretion of the bile, from the thinner parts being absorbed: gall stones passing from the gall bladder, choaking the common duct; inflammation of the ducts, diseases of the liver, diseases and tumours of the parts near the ducts, stopping them up; and the enlargement and general pressure caused by pregnancy, &c.

There are many sources of the above named obstructions: grief and care produces a constant uneasiness in the pit of the stomach, and about the ducts. An indolent life will probably favour concretions, and crystallizations of the bile into a sort of stones. Drinking ardent spirits will inflame the whole liver; a bilious

country will also render a person liable to disease of the liver. It is no uncommon thing for a person who has had a bilious fever, to have jaundice following it, the same or the next season. The dark green jaundice is reckoned far the worst.


MANAGEMENT.—A vegetable digestible diet, watery, and acidulated drinks, gentle exercise, cheerful company, great attention to clothing, avoiding damps, and removing from swamps and necks, as well as all other sickly places, are necessary to a cure.

CURE.—Dandelion, barbery bark, and other yellow flowers, roots, or barks, and yolks of eggs, were the quackeries once used for this disease; but that old Italian doctrine of similitudes has now given way to a better practice.

Removing the sluggish costive state of the bowels, by a purgative pill of aloes and calomel, every other day, for ten or twelve days, and drinking freely of cream of tartar and water, and withdrawing the causes, will cure one half the cases. When more obstinate, a blister over the region of the liver must be used; and a regular course of calomel, in the form of Plummer's pills, be tried. In many cases it may be necessary to bleed, as where there are marks of inflammation, or if there be fever, or pain in the side. Gall stones alone seem to produce much pain; and when that is excruciating, nothing but opiates will relieve it. The warm bath is also a remedy in pain. A sick stomach is often a troublesome attendant: for this purpose, saline draughts will be proper; and a gentle puke of ipecacuan will sometimes be of double service, by bringing off some of the concretions. The bowels must not be suffered to get out of order: the old preparations of tincture of aloes, with a portion of alkali to it, or pills of aloes and soap, or aloes and salt of steel, will be very necessary to prevent costiveness. The York Springs are very suitable waters, as also the Virginia Street sulphur springs, for an obstructed liver.

When flatulent dyspeptic symptoms are troublesome, a pill of aloes must be taken, and then thirty drops of

ether, diluted with an equal quantity of spirit, and mixed with some water, so that the stimulus may be agreeable, may be taken frequently; or two drachms of tincture of rhubarb, with twenty drops of ether, may be used in place of the aloes and ether.

 Perhaps a tartar plaster over the right side, might be of great service in an obstinate case. Permanent tumours pressing the parts, can only be treated palliatively: by aperients, opiates, and diet.

After the removal of the disease, the system should be restored by bark and preparations of steel, especially if it has succeeded malaria.

HYPOCHONDRIASIS, (HYPPO.)

CAUSES.—Obstructions in the liver and spleen, sluggishness of the bowels, inactive life, long and intense study of abstruse subjects, great evacuations, full living, drinking rum, any mournful or trying circumstances suffered to prey on the mind; predisposing peculiarities of body or mind: the former is discovered by a sallowness of the skin, that seems to take a tinge from the liver; the latter (mind) is either altogether slow in its movements, or passes from a common standard to very low, without adequate causes. To which may be added, the climate of low insulated lands, or those exposed to the sea air.*

SYMPTOMS.—Langour, listlessness, want of resolution, fear of every disease, magnifying the most trivial diseases into mortal cases, great impatience under slight affliction; vigilance and want of refreshment, by sleep; palpitations, eructations, costiveness, pains, and distensions about the sides and abdomen; pains also in the head and back of the neck, and spasms in various parts of the body, with a thousand variations; besides errors of mind: so that every hypochondriac has his peculiar set of symptoms; from which circumstance, it is in vain to cite a case for his comfort, or to insist

* England and Holland experience this. Dr. Goldsmith informs us, that it is very common after thirty years of age. He recommends music.

on the disease being without danger. The pulse is very slow in some cases, but quicker than natural in others, and nearly always fuller and stronger. Dissections have sometimes discovered the liver and spleen to be diseased; and that effusions, or distensions, have taken place in the brain. This last affection has no doubt been secondary, and will generally end in mania, and, with rum drinkers, in suicide: but there are one thousand of lesser grade to one of these.

MANAGEMENT.—This requires much skill, and is half the cure. The patient is to be soothed and coaxed, and his ideas met in a manner that will lead him off his ground unawares. If he be miserly (which is too often the case) get him to ride to a vendue, promising him a bargain; and contrive not to disappoint him, even if the purchase be no more than an old tea pot, to make his medicine in. Exercise on certain occasions, is all in all; for it will often happen that the patient will be more and more obstinate in refusing to stir; and even at last to declare himself non compos, or may be, dead. Vansweeten tells a pleasant story of a hypochondriac, who supposed himself so, (dead) to which one of the physicians, who was more knowing in these cases, agreed; and on the next visit brought his dissecting apparatus, with great parade and clattering, to open the body; upon hearing of which, the hypochondriac said, “he thought there was still a spark of life left.” This acknowledgment, the intelligent physician soon made a good use of, and got him on his legs again. Suffer not a hypochondriac to read a medical book, or he will think that he has every disease but his real one. Let him live sparingly, and choose such food as he can best digest, and be kept from the knowledge of any untoward circumstances that he has an interest in: especially, such as the fall of stocks, or a tenant of his running away. His room should be light and airy, and his company a few cheerful friends, who may occasionally force a laugh, to keep his mind off his disease. By all means have a lamp and friend, at night, in his bed room. The at-

tendants must never forget, that, though this disease is so seldom mortal, yet there is a great suffering in it; and, of course, a great deal of tenderness should be shown to the patient's feelings; and his errors never mentioned to him.

CURE.—When the pulse is full, and especially if the body is full from much eating or drinking, and little work; bleeding will relieve to a great extent, and without it the cure will be slow. The bowels should be opened with calomel and jalap; and be kept open by gentle doses of some mild medicine: such as castor oil, aloetic pills, rhubarb and magnesia, senna and figs, &c. These prescriptions may be repeated daily, so as to procure two or three passages. The above, with spare diet, will soon have an effect on the pulse and mind. In some cases, if the disease continues, it may be well, after reduction, to put a blister on the side, or use the tartar ointment; or frictions and stimulants to the pained part, in more trifling cases: a little opodeldoc is the most comfortable. In a protracted case, it may be necessary to use a pill of mercury, morning and night, for a week. The patient should, after the above remedies, be coaxed into a carriage every good day, and ride five or six miles or more; and when the pulse has fallen to, or below, a natural standard, he may take some of the nervous medicines. His aperient medicines may have some assafœtida added to them, or he may use a valerian tea. Should he be much weakened, some of the tincture of steel, in spirit of sea salt, may be used with camomile tea; or if not a drinker, a toddy made with gentian bitters of the shops. When he can walk, he should turn out to agreeable places, and return by degrees to his business;

☞ Ten to fifteen drops of tincture of steel, in spirit of sea salt, may be used three or four times a day.

The ethereal tincture of assafœtida may be used when flatulent, in a little milk, especially if the pulse is weak.

For acid on the stomach, a small dose of any tincture of rhubarb, with fifteen grains of soda, or a teaspoonful of magnesia, may be used two or three times a day.

See the apothecarium.

being always careful to avoid damp weather, and be clothed to suit the season. A journey to some of the springs would finally restore him. When the patient lives in a city, he may drink ærated waters, as a restorative; and he should be directed to some fountain that is farthest from his house, to induce him to walk.

INFLAMMATION AND OBSTRUCTION OF THE SPLEEN.

Inflammation of the spleen, ending in suppuration, is rather a rare disease. In two instances, when the author attended in the necks, (where the people are more subject to affections of the liver and spleen,) this disease took place from sitting up at night, with other sick people. A constant fever, with some uneasiness of the parts, preceded a fulness on the left side, which increased for a month, and then fortunately made a rupture outside: discharging a quantity of puss for a long while, exceeding in quantity any other case ever witnessed. This patient got over it; and a total change of constitution ensued: from a thin moderate sized and active man, he became unwieldy and inactive.*

This will be some warning to persons who may have enlarged spleens, to indulge in a recumbent posture occasionally, when attending at night, as assistants on the sick. The spleen is sometimes indurated without enlargement.

CURE.—When such disease is suspected in time; bleeding, rest in a recumbent posture, blistering and purging, may be tried. Mercury would come in too late, unless the cure was protracted by the bleeding.

Obstructions in the spleen are almost always the result of intermittent fevers; though dissections have shown that, in most cases where the liver is disordered, that the spleen partakes of the same: and these glands are often diseased secondarily. The spleen will sometimes become cartilaginous, verging to ossifi-

* The old story of the Indians cutting out their spleen to make them run fast, was very badly chosen.

cation on the side of the ribs; and in one instance the author opened a subject where the spleen was ruptured for three inches, by a blow of the fist, that caused death in a few minutes. In this case it was indurated by intemperance, but not enlarged. When enlargements of the spleen are of recent formation, they may be reduced by a slow course of blue pills, or Plummer's pills, keeping the bowels in order.

The use of Bedford, York, and other springs, that are aperient, are well worthy of a trial; but to expect any success, the necks must be abandoned, and high porous ground chosen for a residence.

Flatulency and costiveness will be doubly oppressive to patients with this disease, and they must guard against such things, both by diet and medicine.—The pills of assafœtida and aloes are very suitable.

INFLAMMATION OF THE KIDNEYS.

CAUSES.—External contusions, violent riding, long journeys, strains on the back, cantharides, stones passing.

SYMPTOMS.—Fever and pain about the loins; which may be distinguished from rheumatism by the pain shifting in rheumatism; by a retraction of the testicle, on the affected side, in kidney disease; as also by a numbness down the thighs and legs, vomiting, colic pains, costiveness, red colour of the urine, and small discharges of it at a time.

MANAGEMENT.—The patient should confine himself to a mattress, and have plenty of mucilaginous drinks: such as barley water, elm tea, flaxseed tea and gum arabic and water, in thin mucilage. His food should be very light: such as chicken water, vegetables, gruels, &c.

CURE.—Bleeding should be performed two or three times, in quantity suitable to the patient's constitution, age, and the urgency of the case. After bleeding once, fomentations may be used (to the small of the back,) of camomile and bitter herbs: this should be used

rather tepid than hot. The bowels should be freely opened, and kept open, with castor oil, salts, or sedlitz powders; these last do best for secondary purging. Clysters of tepid milk and molasses, or sweet oil, or broth, should be used very frequently. Some of the more cooling fever powders: such as No. 1, or 2, should be given (where the purges are not using) every two hours during the continuance of fever. If flies have not produced the disease, there can be no danger; and much benefit may ensue from applying, after two bleedings, a blister on the side affected; but let it be one that is well prepared, as in the apothecarium; and taken off when the skin first rises.

NEPHRALGIA, OR GRAVEL.

In what is termed a fit of the gravel, the pain will commence very suddenly, about the region of the kidneys, attended with sick stomach and vomiting, a numbness and pain extending down the thigh; the testicle (on the diseased side) becoming retracted. The skin of the abdomen has been observed by Dr. Pemberton, to become very sensible, in some cases; extending its morbid affection from the hip to the navel, on the same side. These symptoms are caused by a stone passing from the kidney into the bladder. The moment this is accomplished, all pain ceases. It is to such a paroxysm that the name *nephralgia* is properly applied. Stones, however, will sometimes remain in the kidneys, producing pains in the loins, and bringing on discharges of blood or matter. In such cases, the urine is discoloured, and made frequently in small quantities. The stones have been known to work through the loins; to produce ulcers in the kidneys; and at other times to produce no bad symptoms for a long time; but these are rare cases. Riding will test the presence of a stone, whilst the numbness and retraction of a testicle leave no doubt about the diseased state of the kidney, from either gravel or stone. When the stone has reached the bladder, its next effort is to

pass the urethra. It sometimes, though very rarely, makes a stop in the ureter;* but more often reaches, and remains in the bladder, to accumulate; or passes the urethra.

Gravel and stone are said to be the hereditary diseases of females born of gouty parents; and at any rate is the companion of the gouty, in temperate and cold climates.

CURE.—In one of those fits, bleeding is the first thing to be done; brisk purging must be carried on by repeated doses of oil, or salts, so as to keep up an action on the bowels. This may be assisted by enemmas of warm oil, every half hour, after those operations. The warm bath is also highly recommended; but such is the severity of the pain in most cases, that, after bleeding, opiates in large doses, every two or three hours, with some calomel to prevent constipation, becomes necessary. Mucilaginous drinks may be used, merely to quench thirst. Dr. Darwin recommends a bag of pounded ice to be laid on the pained part; but this may be reserved until the former prescriptions are found to fail. Repeated bleedings are sometimes necessary, according to the fulness and habit of the patients. They are generally corpulent, or great eaters and drinkers. If the stone makes any delay in the urethra, it is necessary to give large quantities of diuretics: such as ærated waters, watermelon-seed tea, and drinks of mucilaginous teas, with a portion of nitre in them. In some female cases, the urethra may be dilated by a succession of bougees; beginning with those that give but little distension, and using larger and larger: giving the diuretic drinks, to try their effect. But should the stone remain in the bladder, it will become an object of the highest importance to arrest its growth. This may be effected in many cases, provided the patient will change his manner of living, from over eating and drinking too much wines and spirituous liquors, to that of an abstemious diet,

* This is always a fatal stop, and the kidneys soon become ulcerated, and hectic closes the scene.

watery drinks, and exercise. To understand this, the patient must be informed that the elementary particles of the stones are factured in his system; and that by their accretion in the kidneys, they become a small stone, which enlarges, after it passes into the bladder, by more of the same elementary particles; also, that this accretion may be prevented in two ways: first, by giving of such substances as will unite in the *primæ viæ* with the aforesaid elementary matter, and form with it an *insoluble* compound, which will of course be retained in the intestinal canal, so that it may go off that way. Secondly, by giving such chemicals as will unite in the kidneys or bladder, with the unconcreted elements of the stone, and form with them a new compound, *soluble* in water. The stone will then cease to grow, and will wear smooth, so as not to be incommodious, whilst the soluble compounds pass off by urine. The first plan is accomplished by doses of magnesia and lime water; the second, by alkalies of either potash or kali, (soda) in an ærated or superærated state, given pretty freely, but not so as to injure the stomach. They are mostly suited to the uric acid, which is known by the yellow or reddish sediment in the urine. It is worthy of observation, that children who have sediment should be attended to: for they are subject to the gravel and stone, equally with a more advanced age. When the sediment is white, these alkalies are said to be improper; rather increasing than arresting it. The muriatic acid is then to be substituted; and it may be used in the other cases also. The ærated alkaline waters, either soda or potash, prepared in the cities, are some of the best that can be used. Medicines (not of a chemical operation) are frequently used in cases of a more chronic kind, or where much relaxation is suspected. The *uva ursi* is one of those. It is an astringent that seems to give a tone to the urinary organs: thus arresting the inflammatory actions, from which flow all subsequent evils: thirty to forty grains may be used three times a day.

The wild carrot seems to be a narcotic that will

relieve the pain occasionally. In the more chronic cases, proceeding from small stones, that irritate more by their forms and roughness, than by their size, a wine glass full of this tea, pretty strong, may be taken three times a day, *by an adult*. It is unfit for children, and will convulse them even to death, as has been witnessed by the author. The tops are used.


The ærated alkaline waters of the city, can be taken at the rate of twelve ounces, three times a day; or the ærated potash may substitute them: diluting fifteen grains with half a pint of water. Or the same quantity of soda may be used.

Ten to twenty drops of spirit of sea salt may be diluted with a large wine glass full of water, and used three times a day.

In all dyspeptic cases, the decoction of bark, and elixir of vitriol, may be used, especially where the urine, after coming off clear, deposits a white sand or phosphate of lime. These deposits are common to broken down constitutions.

Dr. Barton supposed the *uva ursi* particularly beneficial where the gout and gravel were associated.

Porter and acid wines are supposed to bring this disease on children, if suffered to drink them freely.

 The wild carrot is found in damp fields, where it has escaped from the gardens and grown acid; it is not the *daucus pusillus*, of Carolina.

The gravel deposits, made from urine in different dispositions (diathesis) to form stone, are either white sandy sediments, or small crystals of a reddish yellow hue, such as deposited in fevers. These gravelly substances either agglutinate, or some particular one becomes a base or nucleus, and takes up the deposit, and becomes a small stone in the kidneys. From the kidneys it passes down to the bladder, forming in its passage nephralgia, and when arrived at the bladder, if detained, fresh accretions ensue; and it becomes a stone in the bladder. It must be noted, that those deposits, though so different in chemical composition, (*viz.* solid uric acid, phosphate of lime, magnesia, and

ammonia;) yet the disposition to form them is so similar, that in many instances a commutation ensues, and the uric acid is changed for the phosphate. And, moreover, this change will sometimes ensue from the exhibition of medicine, so that it becomes necessary to change the medicine, to pursue the disease. Thus the alkali and earths are to be changed for the muriatic acid, when uric acid has ceased, and a phosphate still forms; and vice versa. In broken down constitutions, there is an entire prevalence of phosphate, which will not change. There is, however, no visible deposits in the urine, when oxalites of lime are formed; which, happily, is a rare formation; as it becomes one of the most angular and rough stones. The urine is then perceptibly acid, and of a light straw colour. A commutation in such case would be very desirable; but little is known of this. There are also other peculiar formations, still more rare.

The long use of an alkali is generally pernicious; which circumstance must be attended to. And although the above chemical doctrine is so plausible, there are strong doubts in the minds of some eminent physicians whether their effect is any other than to correct the irregularities of the stomach; which is so much concerned in the formation of deposits. And even those who think best of them only use them in part; putting more confidence in correcting the general health, by temperance, exercise, gentle purgatives, and all those means that restore a complete digestion, of suitable food in due quantity.

When a patient deposits a sediment pretty regularly after meals, it is full time for him to attend to his situation.

DISCHARGES OF BLOOD FROM THE URINARY PASSAGES.

CAUSES.—The passing of stones, hard riding, blows near the parts, suppression of piles, acrid medicines;

also some low fevers: as typhus, yellow fever, and malignant small pox.

SYMPTOMS.—A quantity of red, or coffee coloured urine is discharged; sometimes pieces of coagulated blood, of a worm shape; at other times blood is diffused through the urine, and deposited at the bottom of the chamber furniture. There is seldom much pain unless a stone is passing.

MANAGEMENT.—The patient should lay on a sofa, or mattrass, and carefully avoid all stimulating drinks. All the causes require removal to ensure a cure. Barley water, gruel, rice, thin broths, and eggs, in their various compounds and cooking, may be used for diet.

CURE.—The above regimen will be nearly enough in some cases. But when the discharge is excessive, a little alum whey may be used. The bowels must be opened with castor oil, and enemata, made of starch, with a little common salt, and nearly cold. If the patient is of a plethoric habit, some blood may be taken from the arm. Nauseating doses of ipecacuana, or white vitriol, may be occasionally used if the alum whey is insufficient to restrain the discharge of blood. When cantharides have been the cause, some physicians recommend camphor dissolved in milk; as also large quantities of gum arabic in mucilage; but, perhaps, as the pain is so exquisite in such cases, small opiates should be added to the camphor.

In low fevers, vitriolic acid is administered freely with the Peruvian bark: for the hæmorrhage depends then, on the general condition of the patient.

STRANGURY.

CAUSES.—Inflammation of the bladder, or its appendages; produced by falls, blows, fevers, gravel, constipation, riding, drink, violent exercise in hot weather, acrid injections into the urethra, or ulcers there; absorption of Spanish flies, or taking of them inwardly; pregnancy, piles and spasms: such as occur after dysentery, or drastic purgatives. Sea air, or the action of

the sea, will often produce it in new sailors. Iscury, or total suppression of urine, is more commonly caused by some mechanical pressure: as the enlargement of the prostrate gland, or the inversion of the uterus in early pregnancy.* Strangury consists in a difficult and painful discharge of urine, and an interrupted miction.

MANAGEMENT.—Rest and great temperance are necessary; particularly avoiding of spirituous liquors. Great attention should be paid to keeping the bowels in regular order, and some attention to dress will be needed in winter; as the disease will be excited by cold, or by a rheumatic habit. All rough purging, and the use of aloetic medicines, are to be avoided.

CURE.—When there is evidence of inflammation, by the pulse, and the pain being permanent; and especially if the patient is of a full habit, a bleeding will be necessary. This will, however, be always needful after blows, violent exercise, fever, and in pregnancy. Bleeding may be followed with doses of castor oil, and tepid injections of oil, mucillages, or broths. Cream of tartar should be used as a drink constantly. Nauseating doses of ipecacuana will sometimes be needed, and also saline draughts in the effervescent state.

As a topical remedy, the sitting in, or over water, moderately warm, is very beneficial. If, after depletion, the pains are very severe, some opiates should be given internally, and anodyne injections may be used at the same time. A teaspoonful of the decoction of tobacco may be put to an enema of tepid water, if the disease is obstinate.

A strangury from cantharides is not very common, nor very dangerous, though excessively painful. Opiates or camphor, dissolved in milk, and especially large potations of barley water, or gum arabic, are the best means. The sprinkling of flies on the *surface* of

* No time should be lost in a total suppression: a surgeon should attend in all such cases. See the diseases of pregnancy and iscuria renalis.

plasters is the most common causes of their producing strangury.

When piles have induced the disease, leeching them, and applying the ointment for them, and the remedies aforementioned, will be needful. Women who are pregnant, should not sit over steam, but use the remedies prescribed in *diseases of pregnancy*. Which see.


The strangury that succeeds dysentery yields to cream of tartar and mucillaginous injections.

In strangury arising from gravel, changing the posture, and injecting tepid water into the bladder, may be used, together with keeping the bowels open, warm bathing; and in some cases opiates. The uva ursi might perhaps be useful as an astringent and tonic, to diminish the sensibility of the parts.

The gout in the bladder must be treated as inflammatory misplaced gout. See gout.

Sea strangury is said to be relieved by small doses of spirit of turpentine, say twenty drops, taken three times a day. But great temperance is needful.

Where this disease has no peculiar marks of inflammation, the following articles will often be useful: tincture of steel in spirit of sea salt, watermelon-seed tea, and alkaline ærated waters. Also, a mixture of five grains of nitre with as much potash, taken in mallow tea, three or four times a day. Dr. Gregory's pills may also be used: composed of blue pill, three grains, foxglove, one grain, squills, three grains; one every night and morning.

 Children are sometimes affected with strangury during dentition, and perhaps after eruptive diseases; and sometimes from local injury. They cry out as if pins were sticking in them; and cease when the urine is discharged. The parts should be always examined; the tepid bath used, and enemata of tepid oil injected. The bowels should be opened with castor oil. In local injury, a large tepid poultice of flaxseed, or other soft article, might be used with advantage after bathing. Opiates will be sometimes needed, and

they may also be injected into the bowels in extreme cases.

If the disease is of any duration, only one half the milk should be given, and the balance made up by thin rice, or barley water, or of milk diluted with five times of water; so that the child might be reduced.

Perhaps the giving of meats may conduce to produce it.

☞ See nephralgia and venereal disease.

ISCURIA RENALIS (DEFECT OF URINE.)

“Iscuria renalis is a very rare form of disease; in which the functions of the kidneys are suspended, and the urine (or its material) retained in the blood. The accompanying symptoms are a dull pain, or a sense of weight in the iliac regions, with great anxiety, nausea, vomiting, hiccup, cramps, general irritability, and restlessness; or sometimes delirium, lethargy, and coma. It is occasionally attended with a constant desire to make urine; though the catheter proves, that none is in the bladder. The taste of urine has been discovered in the mouth, and in many instances a strong urinous smell has been perceptible in the perspiration.”

CAUSES.—Some local affection of the kidney: as gravel, schirrus, hydatids. It has also been supposed to be a sympathy with some affection of the brain, but it is far more probable, that in all cases where the brain is affected, that some disorder in the kidneys had preceded; so that the brain is the sympathizing organ, and the kidneys the origin of disease in all cases. The urine has, in many instances, made its way to a great variety of places in the human body, *after secretion*; but in this disease it never has been secreted, and the pathology of its appearing by smell, in other parts of the system, is very obscure.

When suppression is entire, coma soon comes on, and death follows in a short time.

TREATMENT.—Dr. Gregory, from whom the description of the disease is copied, recommends the warm

bath, stimulating diuretics, turpentine injections, cupping the back of the neck, and brisk purging. But from the state of a patient, mentioned by Sir Henry Hallford, which patient was a corpulent man, and taken with a chill (an unequivocal mark of inflammation at its onset) there could be no remedy that was so needful as copious bleeding. And the author is well persuaded, that stimulating diuretics, whether spirit of turpentine, tincture of Spanish flies, or any essential oils, should be had recourse to, only after a full depletion in plethoric patients. Nor is there any good reason to forbid a blister* over the kidneys as well as bleeding. Tobacco, both by clysters and draughts,† is recommended. A stone will seldom occupy both kidneys; and of course when that is not the case, the other kidney is affected by an extension of inflammation; to prevent which, would relieve the patient: as urine sufficient for the economy of the system would be passed from one kidney.

There should be no settled judgment on this disease, till the catheter has proved the absence of urine in the bladder.

* Nineteen cases out of twenty, of strangury from blisters, proceed from the slovenly practice of putting flies loosely on a plaster. When properly made, and the patient endued with no peculiar disease to direct its influence on the bladder, it never will affect a patient in that way.

† Twenty drops of a saturated tincture of tobacco (or a decoction) are given every hour, in Sweden, so as to produce nausea; and an enema made with one drachm of tobacco, and eight ounces of boiling water, may be used frequently with the same intention.

If, from the habits of the patient, there is a likelihood that the disease is spasmodic, opium should be given. Perhaps sixty drops of laudanum, in each clyster, would be the safest exhibition. Warm water injected into the bladder, by giving a gentle stimulus to the bladder, might act on the kidneys. This, we presume, should always be tried, as the natural stimulus, viz. the urine, is absent.

DISEASES OF THE BONES.

CHAPTER IX.

WHITE SWELLING OF THE KNEE.

It is not intended in this chapter to enter into the pathology of scrofula, (a disease so little understood,) but merely to describe a complaint pretty common, depending on a peculiar habit of the patient. A tumor without redness, or water, or much pain, arises on the whole of the knee joint; producing lameness, and an emaciation of the thigh and leg. If neglected, it sometimes ulcerates, and after a long while, destroys the joint. This affection has often succeeded a fall, or some other injury done to the knee; but more often comes without any known cause.

CURE.—The plan that has succeeded best with the author, is to apply blisters, in a regular succession, below the knee for a month or two, and to apply a very strong wash of lead water to the joint: made with half an ounce of sugar of lead to a quart bottle of vinegar and water. This application is to be made night and morning. The knee is then to be tightly bound with a very thick piece of buckskin, about nine inches long: it must come entirely round, saving an half inch. Strings are to be sewed to each side, to tie it. In a short time it will get the shape of the knee. The strings are to be sewed on, so that when the leather stretches, it may be brought as tight as the patient can bear it, without obstructing the circulation. With the help of a crutch and cane, the patient may keep about the room, or yard; but must not trespass on his weak knee, when he feels it getting stronger.

On the thigh and leg, if fallen away, some stimulat-

ing liniments may be used; such as the following: take of the spirit of turpentine, one ounce; camphor, half an ounce; dissolve and add four to six ounces of sweet oil. Or, instead of the oil, an equal quantity of castile soap, reduced to a very thick consistence, by rubbing it with warm water; say half an ounce of soap scrapings, and four ounces of water.

The blisters must be put on a fresh part when the first are dried up. The leather should be used a long while after the patient has got well, as it will be a great support.

A flesh brush will also be useful to the emaciated muscles, and flannel drawers always.

The disease will sometimes pass for rheumatism; yet it is not febrile; though bad weather has its effect on it. But as there are no other parts showing rheumatic affections, it will be easily distinguished.

The diet may be as usual; the bowels must be kept regular. In rheumatism they are always costive. Young men are generally the subjects of this disease.

CURVED SPINE.

This disease is prevalent with children of different ages, though at times it attacks weakly adults. The immediate cause is supposed to be a caries, or rotting of the vertebræ of the ribs. Although so formidable, it admits of a cure; and both this, and the ascertaining of the disease by its symptoms, are within the power of those who may have no access to a physician. To ascertain the disease speedily, is of great importance; and to prevent quackery and deception, is of still more consideration; otherwise this chapter would not have been introduced into a popular work.

SYMPTOMS.—These will be taken from Mr. Potts's works. The child (if it can talk) complains of languor, exhibits a listlessness, and becomes soon tired of walking; he trips and stumbles. His legs are found to be drawn across each other, by an involuntary spasm which throws him down, especially when he moves

unguardedly. His knees totter when standing alone. The child complains of twitching in his thighs, particularly when in bed. His legs, when sitting in a chair, are found across each other, and drawn up under the seat. In the process of disease, the ankle joints become stiff, and the knees difficult to bend, and the toes point downwards, so that he cannot put his foot flat on the ground. If the vertebræ of the neck are the seat of disease, the child is always endeavouring to rest his head. The functional disturbance of the system, when the back is the seat, are loss of appetite, hard dry cough, laborious respiration, quick pulse, and disposition to hectic. A pain in the side often precedes for a month, in lesser cases; at length the person evidently becomes deformed by a crooked shape, arising from the diseased bearings of the back bone, with the ribs and sternum, (or breast bone.) A shape that every person must have noticed in those unfortunate children who have been neglected.

The disease attacks children before they can walk in some instances, and it is probable that the ability to walk is often deferred to a longer time, from the predisposition to this disease.

The adult always complains of a dull heavy pain in his back, and weakness; a coldness of the thighs succeeds, and a diminution of their sensibility. Involuntary twitching of the thighs and legs, at bed-time, succeeds to the above; and then an inability to walk, with a paralytic inability of bowels, bladder, and genitals. The arms are sometimes afflicted like the legs. The adult complains of a tightness in his stomach, indigestion, and impeded respiration.

The caries of the bones are the consequence of some morbid state of the body, that has located an inflammation, or ulcer, in the integuments of the bones, which has destroyed them. This previous state is the cause of all the symptoms, except the simple deformity of shape, which is caused by an actual loss of bones; the pressure of the body acting on such defect.

The back bone pushes out at the diseased spot, which is readily felt with the hand.

CURE.—The only known cure consists in applying issues, made with caustic, on each side of the spine, where the tumor appears; or if no tumor has appeared, where the pain is felt. These issues should hold two or three peas at first, and then be increased as need may be, or the size of the patient require. The part over the bone must be preserved from injury by having the issues so far apart, that when the eschar comes out after applying the caustic, there may be two inches between the openings. The discharges must be kept up by using stimulating peas, made of green oranges; or by applying some flies, red precipitate, verdigris, or blue vitriol.

The issues must be deep, (reaching the bottom of the adipose membrane) and the discharge of matter considerable. By this means the internal inflammation is diverted to the artificial sore, so far as to give nature a chance to reinstate the lost bone, or fill up its avenue with a healthy bony substance; making what surgeons call an anchyosis, *i. e.* one bone growing to another. And as there are so many joints in the spine, the loss of action in one or two are not much felt. From three months to two years have been found necessary to effect this cure. But even admitting the larger of these times; how much better is it to be recovering for two years, than to be a dying for seven. Attention must be paid to diet, as also to the bowels, by enemas; and no other than *a recumbent posture* will do to relieve the spine of its burthen. Adults have frequently been injured, if not destroyed, by riding long distances for health, when attacked with this disease, for want of a knowledge of its nature.

As the patient recovers, his appetite gets better, his knees more supple, he can put his feet flat to the floor; and so one symptom of the disease gives way after another, till health enables the patient to resume his wonted actions and amusements: however, he must

not expect any thing, but to be mortified at his first attempts to walk, after such a long suspension of muscular motion. He should try his friends' shoulders, and then his crutches; remembering that he is in fact to learn again those muscles their old lessons. Children should have a three legged cricket, with bed runners on the feet, and a hole in the bottom; so that they may be put through to their armpits; and with a little assistance may try their legs; but not too soon, nor to fatigue them.

An inspection, both of cause and effect in this disease, must prove to every sound judgment, how unsuitable all the apparatus for extension of the spine are to this disease; no such operation is wanted, and it is always gained by an injurious pressure on some other parts. Laying down is all that is necessary to relieve the spine, and all other parts rest with it. It is true that a relief of the spine is wanted (*i. e.* as to its incumbency) long before the effects amount to a caries. If, therefore, such disease is found to be commencing, the recumbent posture will do all, and much better than an artificial extension, whilst up; and at that early period, perhaps blisters, and especially plasters of tartar, would be sufficient.

We must not mistake this disease for a simple malformation of the spine, so common to growing girls; which too often, from mere neglect, becomes a great deformity; but here are no ulcers or caries. The bones, however, will conform to the bend; and when so, no machine can alter them. But when there is an appearance of such a disposition in the system, some slight apparatus, merely resting on the hips, and under the shoulders, not pressing the ribs and stomach, might be useful; provided attention was paid to other circumstances. Thus, when a weakly girl is suffered, at school, to twist her body in writing and drawing; a malformation will often ensue: and what good would any apparatus do, whilst she is permitted to sit thus eschew?

Some surgeons say that no caries of the bone takes

place in most cases, unless it be a very advanced and neglected case. Well, if it is so: nevertheless, mere relaxations of such important ligaments as connect parts that bear the whole weight of the parts above the place, must be attended with little less in symptoms, and require the same remedies, except the deep issues.

RICKETS.

This disease is rare in this country, perhaps more so than it was some long period past. This latter circumstance may be owing to the foreign constitution of the inhabitants wearing out of the system. The free air and active life of the American people will prevent all hereditary dispositions, unless we get too largely into manufacturing.

CAUSES.—Confinement to damp apartments; and a damp valley country, has been supposed the external causes; whilst a deficiency of lime (the material of bone) is said to be the intimate cause.

SYMPTOMS.—It makes its appearance between the ninth and twenty-fourth month; mostly among people who have not every conveniency of life. The child becomes sedate, and emaciated; the head enlarges, and the belly swells; whilst most other parts fall away. The bones are so materially affected, that the legs will become bandy, the breast protrude, the ribs flatten, and the spine yield to the weight of the body. The discharges from the bowels are liquid and unnatural. Dentition is slowly performed, and the teeth quickly decay.

Children with rickets are very averse to motion, and when old enough to understand, will refuse to talk. It is not a mortal disease in general, but will sometimes advance, and the patient become hectic and die. But in general it moderates by age, and goes off: frequently leaving the misshape on the system, especially the bandy legs.

There are instances where the mind seems to have advanced greatly beyond the age.

MANAGEMENT.—The child should not be kept very long at the breast, merely because it is feeble, or is slow in cutting teeth. A portion of lean meat is very necessary to him; but teas should not be given. Exercise, by riding or sailing, is useful; but then the child should be laid on a small mattress, in the nurse's lap, not forgetting the weakness of the bones. A mattress is also needed for it to lay on at night.* A dry mountain air is preferable, and in no case should the patient be kept in a subterraneous apartment. Cleanliness is of high importance. A little port wine, or white wine and water, with nutmeg, will be necessary for drink.

CURE.—If the weather is not too cool, dipping the child every night and morning will be useful. If it is too cool, washing it pretty freely and extensively, and rubbing the body with a fine flannel, must supply the place of bathing. The bowels must be regulated with small doses of rhubarb and magnesia, and occasionally with a little chalk, rhubarb, and paregoric, if too loose: given two or three times a day, till they are restored.

The acid of the stomach should be subdued by biters, and chalk powders. The decoction of Peruvian bark may be used with a little prepared chalk: say a dessert spoonful of the former, and four to six grains of chalk, four times a day. If there is a constant and regular use of this article, the child's antipathy will be overcome after a few days.

The preparations of iron are also very useful. The tincture of flakes of iron, in port wine, is most suitable. A dessert spoonful may be used daily, divided into three doses; and if the child is over two years, three times that quantity may be used.

* Cat's tail (typha,) corn husks, moss, or firn leaves, will make a good and cheap one.

DISEASES OF THE UTERUS, AND ITS APPENDAGES.

CHAPTER X.

HYSTERIA, OR HYSTERICIS.

THIS is a disease of females, more generally between the age of sixteen and thirty-five; though in its milder form is found much later. Women who are subject to dyspepsy, or to an irritable state of body and mind, seldom escape. The habit that brings it on is also known, by nervous head ache, palpitations, short breath, an easy disposition to laugh or cry without adequate cause; low spirits, sympathetic disposition, and fearfulness.

THE CAUSES that excite a fit, are fatigue, large evacuations, passions of the mind, (low or high,) obstructed menses, indigestion, costiveness, and all irregularities; also want of exercise; and confinement.

SYMPTOMS.—Some disorder is first felt in the bowels, which is succeeded by a sensation like a ball, or globe, rising from them: first to the stomach, and then fixing in the throat. This is succeeded by violent convulsions: beating the breast with clenched fists, and such agitations that no assistants can control. After a while they go off, leaving the patient almost comatose. A great number of these convulsions will sometimes happen in twenty-four hours. In milder cases the patient comes to herself without a previous sleepy state, though seems nearly unconscious of her past fit. Hiccup sometimes takes the place of convulsions; and at other times, fits of screaming.

Great flows of limpid urine, and great discharges of wind from the stomach, with the globe in the throat,


and the sleepy state that follows, will distinguish it from an epilepsy.

CURE.—When the patient is of a full habit, or when it proceeds from obstructed catamenia (in a good constitution) bleeding will be necessary as soon as it can be performed; a puke will, in most cases, also be necessary, and a brisk purge or two, always.

Very little can be done in the fit; but as soon as it is past, if the patient is sensible, or as soon as she is; a pill of eight grains of calomel, with five of aloes, may be given; and if she is likely to have more fits, a large blister should be secured on the inside of her thigh, where it will be more likely to remain firm than on her body. Enemas of glauher salts will be useful before the purge can operate. The puke should be given, if the disease continues after the purge has passed; and when both have operated, further fits may be restrained by opiates, in the form of Dover's powders, or by some assafœtida, with ether. In persons of much weakness, of lean thin habit, and in all lesser cases; instead of bleeding, the old French plan, recommended by P. Pome, of warm bathing, will be useful, between the fits. And after a puke, or a purgative, or both, as may seem best, some assafœtida may be given every hour or two. The assafœtida, combined with aloes or calomel, will make a good purgative for such, and thus save time. But merely to remove an attack of this disease is gaining little, unless the habit and exciting causes are removed; and in these the patient has more to do than the physician. Where dyspepsia, or costiveness, is the forerunner, the patient must attend to what is said on those disorders; and so of irregular menstrual discharges. When she is full and plethoric, abstinence or a lean diet, with occasional bleeding and purging, will be necessary. All irregularities, as dancing, feasting, &c., must be put away. When nervous debility is the source, the patient must set a determined resolution to resist all sudden freaks of temper. She must not suckle too long, (if a mother.) She should expose herself to the open air, in good

weather, and ride or travel when convenient. The cold bath in summer will be a good auxiliary. Moderate steady exercise is useful, if not indispensable, in all cases; especially in those from debility. A costive habit, or cold feet, must not be allowed for any time.

In those cases of feebleness, and in any but full patients, a tonic plan will be requisite as a preventive. The tincture of flakes of iron, with the bitter tincture of rhubarb, (to regulate the bowels,) decoctions of bark, good bitters, elixir of vitriol, and a little good old wine, will be highly necessary. When a fit is perceived to be approaching, a pill of calomel and aloes, and a little of the etherial mixture, or of the tincture of assafœtida, in ether, (after the purge operates,) will often prevent a paroxysm.*

The unmarried and the barren are said to be most subject to hysteria.  Men have occasionally a mock hysteria, but not with convulsions. The author experienced a most severe one, on the giving way of the threads that sewed a large wound.

There are an endless variety of minor cases, where those convulsions are more trifling, or are substituted by crying, laughing, &c., which only require free bowels, a little assafœtida, and exposure to the air in a carriage, to prevent their return.

HYSTERITIS CATAMENIALIS, OR INFLAMMATORY IRRITATIONS OF THE UTERUS.

There is so great a difference between this disease and common hysteria, and common obstructed catamenia, that the author has determined to give it the place of a distinct disease, to prevent any confusion; and to ensure it a proper treatment.

* Dr. Thomas mentions, that he has arrested a paroxysm (whilst on) with enemas of spirit of turpentine: three drachms are to be used, with a pint or less of mucilage at a time. As the bystanders are always anxious to have something done, during such violent agitations, they may rub the temples with ether and vinegar, and burn feathers near the patient; or put some salt into her mouth, or tie a twisted handkerchief, as a ligature, round each leg, below the knee, for two or three minutes; or use the spirit of turpentine enema.

CAUSES.—Some of the causes are a suppression of the catamenial discharge, just when about taking place, or after taking place, by cold, or by astringents, when it has been excessive. There is in such cases a cause sufficiently great to have produced fever, or inflammation in any part, if it were not destined by circumstances to produce this species of hysteritis; which is probably not the case in common hysterics.

SYMPTOMS.—When *acute*, it begins with vomiting, and continues without intermission till the patient is exhausted, or till she reaches the end of the catamenial term. A fever attends, which is often ushered in with a chill. In the *chronic* cases, there is an incessant nausea, and rejecting of all food; a fever also attends. This reaches out the month, lessening towards the last of the term; and then begins again with additional symptoms: as subsultus, spasms in the face, and comatose symptoms, terminating in death. This last variety, or chronic cases, may be most peculiar about the turn of life.


CURE.—It will be necessary in the acute to bleed once or twice; and then, or before, to lay on a blister on the side; as it will be impossible to keep it secure over the stomach. An immediate attempt should be made to open the bowels freely: one grain of aloes, and as much calomel, may be given immediately, after every effort of vomiting ceases, till there is a probability of ten or fifteen pills being retained; or a little calomel may be given the same way, mixed with a few drops of molasses. Opiates, however, will be requisite every four hours, after the first day, and with the opiates, five or six grains of calomel, may be given. But the vomiting is often so incessant, that nothing of any note is retained. Enemas should be given every hour, of salts or oil. But the main dependance is a salivation: for this purpose the blue ointment must be rubbed on the blistered part very freely. Two small blisters may be put on the ankles, partly for this purpose, as soon as the disease proves troublesome: but the mercurializing must be began on the second

day, or there will scarcely be time to salivate. The patient must take no more drinks than will be necessary to wet the surface of the mouth and throat; as more than that would excite vomiting. When the mouth is the least affected by the mercury, the bowels will be easily opened, and the disease give way. Some tonics of steel and camomile will be necessary to brace up the patient.

In the chronic cases, a small quantity of blood may be taken at each bleeding, (and repeated several times.) Enemas of oils, or mucilage, or soup, must be given very frequently. A perpetual blister should be kept open on the stomach. After a while, a little weak toddy may be given, to dispel the wind. No opiates must be given in these cases. The pills of aloes and calomel will be useful, if given in small quantities at a time. If these fail, we must salivate, which will not often fail; and we may do it more cautiously than in the *acute* cases, as there is always time enough.

Great caution is necessary at the returning periods, even if the patient gets perfectly well. A little elixir of propriety should be used every day for a week, to establish a motion in the bowels; and if the patients are of a full habit, some blood should be taken two or three days beforehand. Temperate living is needed in all cases.

It is probable, in both the above varieties, that an inflammation of greater intensity, and of a more extended character, takes place, than what exists in the more simple obstructions of those organs.

 Some milk, or gruel, must be given, very regularly in chronic cases, to support the patient.

CHLOROSIS, OR RETENSION OF THE MENSES.

CAUSES.—When unmarried females have arrived at their seventeenth or eighteenth year* without menstru-

* When a girl arrives at eighteen, or even twenty-five, without menstruating, and is in all respects hearty, let not the impatient mother make her sick with physic. Temperance and regularity is all that is needed; nature will not fail when she is ready.

ating, and the symptoms enumerated below ensue, they are said to have chlorosis. It will be found in general, that inactivity, confinement, or connatural weakness, have laid the foundation of the complaint. There are, however, many particular causes that aid in bringing on the disease: such as a bad climate and soil, previous debilitating diseases, circumstances that prey on the mind, the use of improper diet, and improper use of allowable articles, viz. fruits, cakes, acids, sweets, coffee, tea, and the various abominations of tobacco. Also great neglect of the bowels, exposure at the time nature is about arranging this discharge, and sudden changes in the manner of living. To this last, Dr. Gregory attributes the frequency of it among girls who have moved from the country to be confined to a trade, or business, in large towns. To this list may yet be added many more causes, particularly the fashions: consisting of interruptions in the proper time of the diet, perversions in the time and quantity of sleep, lacing and corsetting, till the blood is forced from its proper rout, and the excrements not suffered to pass when needed; sudden changes of temperature on the body; produced by leaving a hot ball room for a cold street; especially in a dress not accommodated to the season (but to the eye,) and a subsequent day or two of languor and irregularities.

To the above list of causes, which are mostly at the disposal of the patient, or her parents, we may add such as are not, viz. imperforated vagina, and defects in the ovaria. The former of these will require surgical aid; the latter is incurable.

SYMPTOMS.—Great lassitude and unwillingness to move, loss of appetite, or an unnatural appetite: such as craving for chalk, pepper, &c., dyspeptic symptoms, hysteric symptoms, palpitations, short breath, colicky affections, costiveness, vertigo, bad breath; sometimes a cough, bleeding at the nose, pains in the left side, (low down,) and pains in the small of the back; and an occasional association with St. Vitus' dance. The appearance of the patient becomes changed: the whole surface

is puffed: at first pale, and then swarthy even to a greenish hue, which has given name to the disease. The lips are bloodless, the eyes sunken and pearly; whilst a dark circle is to be readily seen about the orbit of the eyes. The legs swell at night, and the abdomen is also dropsical, in appearance at least. These symptoms, at that time of life, will leave no doubt about the nature of the disease.

MANAGEMENT.—All those neglects and practices which have induced the disease, must be attended to, and removed: exercise in the open air, by riding, is all important; a visit to the mountains and springs of Virginia, will, with cheerful company, nearly supersede all medical attendance. Those who cannot accomplish this, must walk out of the city in the morning to some near springs, or jump the rope on the green sod.

Coffee and tea must be used very sparingly, and the diet must be such as will ensure digestion: rice, mush and milk, birds, and small fish, will be some of the best; and in all cases of debility, a little sound wine and water, or old London porter and water, used for a drink. Fruits must be nearly abandoned, as also cakes, sweetmeats, and pickles.

A hard mattrass will be far better than a bed. To be wrapped up in a soft feather bed till ten o'clock, would defeat all the remedies! The dress must be warm in winter, and the use of flannel drawers and worsted stockings, with thick shoes, are very important; for the feet must *never* be suffered to get a chill. A flesh brush will be a very necessary part of the bed-room furniture.

CURE.—Under the head of management, there is a large portion of the curative means; those strictly medicinal are the constant use of such remedies as will give tone and vigour to the system. To these, medicinal stimulants (called emenagous) acting on or near the organs concerned, are used. Some physicians, however, have rejected these latter; but the prudent use of them cannot be abandoned; whilst a total de-

pendance on them would be inadequate, if not injurious, in some cases. Bark and preparations of steel are the principal tonics; which must be regularly administered, with such additional medicine as will keep up a regular peristaltic motion; and when, by such means, the system is under an artificial and general stimulus, the partial stimuli are to be administered for a while in their place; not forgetting to bathe up to the hips when there is any effort of nature, either by pains or partial discharges.

But this plan is suited to cases of debility, and not proper in some other varieties of this disease: for retentions are sometimes attended with a number of inflammatory symptoms; so that it might be dangerous to stimulate: therefore, where there is an appearance of much circulation, pain in the back and abdomen, cough, head ache, vertigo, epitaxis, &c.; nothing can answer so well as bleeding, smart purging, with nitrous and antimonial sudorifics. The seneca tea, with cream of tartar, would do well in such cases; and after depletion, blisters on the inside of the thighs: keeping up an action steadily on the bowels, with small purges of different kinds: such as aloes and soap pills, elixir of propriety, jalap and calomel, given in small portions, at night.

There are also some cases of a doubtful cast. where there is a personal appearance of debility; but an action of the pulse, and bleeding at the nose, or cough. These will do well with a small bleeding, a puke, and some gentle purgatives, continued in for a while. Blisters on the thighs may also be tried. The bath to the hips will be here very useful, and may be often repeated at bed time.

The seneca tea may be also given, with the addition of a little antimonial wine, every night. The guaiacum may be tried in these cases as a purgative, adding two grains of gambouge, or more if needful, to twenty grains of guaiacum, which may be taken in syrup. But all the above remedies, in each of the three grades alluded to, may be considered as general means to put

nature in a way to aid herself; and when we have improved the state of the system, and removed all other diseases, we may resort to the partial stimuli, and emmenagogues: one of the chief, is oil of savin. Four drops of the oil may be rubbed down with a lump of loaf sugar, and diluted with a wine glass of wine and water, and taken three times a day. Or fifteen to twenty grains of the powdered leaves, in syrup, as often. During the use of any of those very stimulating oils and powders, none of the strong general tonics should be used: such as the bark and steel. The oil of pennyroyal, (pulegium) may be used in the same way and quantity, as the oil of savin; as also oil of juniper. Balsam of copiava may be used in double or treble that quantity, in some honey or syrup. Pills of aloes and calomel, for a few times, when there is an effort of nature about taking place, are much to be depended on: let them be used for three or four nights. Injections of spirit of turpentine are recommended by some physicians: fifteen to thirty drops may be put to three ounces of some mucilage, and injected into the *bowels* every night. An immense number of other articles have been used: such as tincture of cantharides: ten to fifteen drops, two and three times a day. Tincture of black helebore, twenty to forty drops, three times a day. This last article is much esteemed in some places. Rosemary tea is a great family prescription: about six or eight ounces of the tea are to be used at bed-time, for three or four nights.

In using all those stimulating articles, this rule must be observed, viz. not to continue them too long, and to desist when they produce any thing like a burning in the bowels; and, moreover, their use (if possible) should be about the period that there is some effort in the system to restore the discharge.

The preparations of bark may be either a strong decoction; or some bark in substance, with an equal bulk of magnesia, taking a teaspoonful in a little water, three times a day.

The preparations of steel are either the tincture of

the flakes, with port wine, or the tincture in spirit of sea salt; which is one of the best when the stomach will receive it: ten to fifteen drops of this latter are a dose, which may be used three times a day at least.

Hooper's pills are not a despicable article; they are said to be a compound of salt of steel, with aloes, jalap, myrrh, and ginger. The jalap might be omitted, as the quantity is trifling.*

INTERRUPTION, OR SUPPRESSED MENSES.

When this discharge has been established for only a year or two, it has made such a change in the female habit, as to be attended with disease, when interrupted. An interruption more temporary will frequently happen in fevers, and other inflammatory diseases, and will come in with the treatment of such diseases; being pretty sure to return with the removal of such disease, and gaining the wanted strength and appetite. It is not, therefore, our object to notice such cases; but to attend to those which have become somewhat chronic. These may be divided: *first*, into such as are attended with inflammatory symptoms: such as bleeding at the nose, or from the lungs and stomach, especially at, or about, the time there should be a discharge of catamenia. They are also attended with fever, violent head ache, pains in the back, and occasionally with hysteria, mania, or epilepsy. *Secondly*, into such as have been interrupted by debility, or induced by other diseases: such as consumption, dropsy, or by grief and care; and especially disappointed love.

In the first grade, there can be nothing done till the patient has been somewhat reduced by a low diet, purging and bleeding; and at every period when those symptoms are about to occur, a bleeding will be absolutely necessary, till the plethora is removed. When the tone of the system is lowered to a proper standard, no farther reducing means should be prescribed in the

* It will make no difference in the cure, if the patient has had a catamenia a few times, and they have ceased, without producing that change to womanhood which a longer time produces.

intervals; but in their place a constant, though gentle *action*, kept up on the bowels, by the daily use of some suitable aperients. These may be arranged in the following way: for the first week of the interval, and after the head ache, &c., have passed off, (*i. e.* nature's effort,) enemias of glauber salts may be used daily. For the second week, a dose of elixir of propriety; or aloetic pills; or ten grains of jalap, with two grains of salt of steel, (in ginger syrup) may be used daily; unless there is too much action on the bowels; in which case they may be stayed, and used again when the looseness ceases. On the last week, some calomel and aloes will be likely to be the most beneficial; taking about three grains of each, every other night, for three times. Having thus brought about the time of another menstrual period, the warm bath must be frequently used up to the hips, or the patient may sit over steams, and then retire to bed, and try a sweat of seneca tea, with a teaspoonful of nitre, and another of antimonial wine, to a small pot of it. This must be taken so as to use six or eight wine glasses of it in the day. If any of these violent affections, such as mania or epilepsy, are apt to ensue, a blister should be laid over the neck, or spine, before the attack; and an issue kept up during the intervals. There are, however, few of these severe cases, compared to the numerous cases that ensue from taking cold; which are attended with much more moderate symptoms. To such, a moderate bleeding at the period, with a mercurial purge; also, bathing and sweating, will generally be sufficient. But if not, by taking great care, through the subsequent intervals, to avoid cold and damp; using proper exercise, and taking the small purgatives of elixir of propriety for ten or fifteen days previous to the expected time; with a few of the pills of aloes and calomel, (for the last purgative;) they will scarcely fail to have a renewal of their discharges in a month or two at farthest. This plan, however, is to be followed up, from month to month, till they do succeed. If the tongue should be foul, or if the stomach does not act well, a

gentle puke will be of service. By taking it in bed, it will hardly fail to sweat; and then a little rosemary, or pennyroyal tea, with a teaspoonful of antimonial wine in it, will keep up the operation. When such cases, however, become of long standing, the savin, or tincture of helehore, as directed for chlorosis, and with this, the tincture of steel, in spirit of sea salt, should be used. This latter (*viz.* tincture of steel) should be used in the intervals, and some of the former about the time of an effort of nature. Blisters may also be laid, at the same time, on the inside of the thighs, or on the sacrum. All those stimulating articles will do best at the time of an effort, and the warm baths (to the hips) are then only useful. But balsam of copiava may be used at any time, especially when pains of the loins are troublesome.


In the other grade of disease, where retension has been brought on by pure debility, or by other weakening diseases, or by distress of mind, a different plan may be pursued. Indeed, when following consumption, or dropsy, nothing peculiar need be done, if there is no uneasiness. But should there be symptoms of disturbances from this source, some of the seneca tea may be used, with bathing about the abdomen, or keeping a bladder of warm water to the part: as also stimulating clysters, composed of twenty or thirty drops of spirit of turpentine, in some mucillage. But where simple debility seems to be the chief source, the bark, wine, tincture of flakes of iron, the cold bath and exercise; especially travelling to the springs, are the proper remedies. The poorest girl may take a walk early in the morning, and jump the rope.

In all cases, the causes must, if possible, be removed, especially those that have operated through the mind; change of place, and travelling, will be to such the only plan of any prospect; which should always precede the medicinal treatment.

When the catamenia has been interrupted for a considerable time, it would appear that the surplus action retained in the system will choose different places to

locate: sometimes affecting the muscles with violent pains, or even with epilepsy; sometimes the lungs with discharges of blood, or with dyspnœa; sometimes the bowels with cholic; and at others, the stomach with dyspepsia; thus attacking every organ. And these things must direct the course to be pursued. The oppressing symptoms, be they what they may, must be attacked, and removed. Moderate purgatives will, in most all cases, prevent, or remove, cholic and dyspepsia. Whilst tonics will have a good effect in muscular affections, and pukes in dyspnœa.

Mania has been the effect of a suppression from disappointed love; such cases may be considered (medically) hopeless; and in all cases it is a distressing circumstance.

 The following prescription has met with much attention; and may be used (when dropsy, pthrosis, or any debility, accompanies obstruction;) with a view to promote the natural discharges:—

Take of powdered myrrh, half a drachm; pure copperas, twenty grains; soda, fifteen grains; soft extract of bark, twenty grains; make two dozen pills. Two of these may be taken every three hours. If the bark is the resinous extract, it must be softened with spirit, so as to make the pills; if not, with water. See also a watery solution of myrrh in the apothecarium.

MENORRHAGIA,

OR IMMODERATE FLOWING OF THE MENSES.

When the menstrual discharge returns at shorter periods than the month, or continues much longer than usual, or flows too copiously; it may be considered a disease; and if permitted to continue, will lead to a state of emaciation and dropsy. It is rarely that young, or unmarried women, have this complaint; though it is sometimes found among such, in low bilious situations, where the constitution has been impaired.

There are two very different, *general*, states of the system, in which menorrhagia occurs; and a third state,

more local, and often obscure. The first is a state of plethora, or fulness of blood, more incident to the rich. The second, is more likely to be found with the poor: being a state of vascular debility. The third variety, is found in various conditions of body and circumstances; and consists in a *local* relaxation, or partial determination of blood, to the affected organs. This last state is brought on, at times, by very obvious causes: such as miscarriages, long and tedious labours, and debauchery. It is also said to be brought on by untimely weaning, by obstructions in the large viscera, (liver and spleen;) and by spasms, which by denying a free passage of the blood, forces it on the uterine organs. It may, therefore, be found in persons where no external marks can suggest a cause. When any of the local causes just stated, are joined to either of the general causes, it is obvious that the disease must be considerably increased; as well as more difficult to manage. In all the three causes, it is pretty generally helped on by some of the following accessories, viz. costiveness, straining, blows and falls, dancing and other exercises; especially when carried to fatigue. Violent passions, frights, overheating the body, and then exposing it, so as to be partially cooled. Febrile diseases, either of high or low grade. To this catalogue may be added the unnatural practice of tight lacing. And as the natural discharges are more considerable in the hot countries, so those who use great fires, and sleep in hot close rooms, will experience that relaxation, and increase of circulation, so favourable to all hæmorrhages, though living in a cold healthy climate.

Menorrhagia generally begins with pain in the head and loins, bearing down, and a kind of chill. Such cases will, *if the pulse is considerable*, require some blood to be taken in the onset. Purgatives of a cooling kind must quickly follow; more especially if the bowels are not free: a large dose of salts may be divided into three parts, and to each of these ten grains of alum, or one grain of blue vitriol, may be added; and one of these small doses given every hour or two.

If the feverish symptoms still keep up, some powders of nitre and antimony, or some nauseating doses, composed of two or three grains of ipecacuana, should be given every hour: beginning with these immediately after the purge has ceased to operate.

This plan, with quietness, and a cool room and a mattrass, with little covering, will generally succeed in reducing the pulse, and prepare for astringents.* Dr. Thatcher's astringent, and the kino astringent, may be used as directed in the apothecarium; and topical applications may be applied to the parts: such as bags of powdered ice, or of salt in a dissolving state; though vinegar and water should first be used. Alum whey may also be used, internally; and injections made into the vagina of alum water, or of infusions of galls, when the case is alarming. In extreme cases, a lump of ice may be introduced into the vagina. Ruspini's styptic is an excellent article, which should be kept on hand. Cold water, or cold alum whey, may also be injected into the bowels. Such persons as have been alarmed with two or three profuse discharges, should be on the watch, and lose a little blood near the period: live low, and keep cool and quiet, till the time has passed. And if a little feverish, drink freely of cream of tartar and water, cold lemonade, &c.

In the second set of patients (where debility prevails) we shall generally find a pale countenance, dejected mind, and every mark of vascular debility; and in a great number of patients evident proofs of a want of the comforts and temporary relaxations necessary to good health. We cannot, therefore, prescribe for them many things necessary for their relief: such as visiting of chalybeate springs, or trips in steam boats, and sea bathing. But, however poor, they may lay aside rum, opiates, tobacco, and be attentive to cleanliness, and use a topical cold bath. But such as can afford it, should

* It is well to know when the inflammation is gone: which is to be ascertained by the absence of the white on the tongue; the natural appearance of the eyes; thirst being gone; the urine natural in colour, as well as quantity; and the pulse soft and slow.

pay all attention, in the intervals, to regain a proper state of health; not only by such means as are mentioned, but by a daily use of bark, and tincture of steel. Some good bitters may do in the morning, when the stomach might reject the bark and steel. If these things are well attended to, and cold bathing, either partial* or general, be used regularly; the bowels kept free by enemas of cold water, and rest in a horizontal posture adopted (when the disease is returning) it will be nearly impossible for it to become serious. But as it may still be too profuse, some of the aforementioned astringents, or some alum whey, may be used; and if more than these are wanted: some of the injections of astringent articles (into the vagina) may be added. Cold will also be properly applied, by means of vinegar and cold water, or by powdered ice in a bladder.

All those aforementioned sources are to be strictly avoided (or the use of medicine will be in vain) such as straining, great fatigue, costiveness, &c. If the bowels are costive when the disease comes on, they must be evacuated by a clyster of glauber salts, or by a gentle purge: such as rhubarb, fifteen grains; blue vitriol, one grain; or by a sedlitz powder. When the legs swell, they must be bandaged with flannel, and more attention paid in the intervals to tonic remedies. And when the whites follow, the same attention, with local injections, are requisite. See whites.

In the third set of cases, viz. where there is an extra local determination to the parts, or a great relaxation of them; every means must be used to prevent the effects. If the local determinations proceed from an enlarged liver and spleen, the patient must not neglect to lay on a bed or sofa, when the catamenia comes on: using the internal and external astringents, and cold applications. Every attention must be paid then, and from period to period, not to increase the obstructions, by eating flatulent food, or allowing of costiveness: long standing, violent exercise, &c., must be strictly avoided.

* The partial bath by a bidet, or any other way; even a quart water pot emptied over the loins, will be of great advantage.

Where spasms seem to be the cause, they must be relieved by opiates, combined with aperients, or in the form of Dover's powder.* But where no evident cause exists, an emetic of ipecacuana, or nauseating doses of two or three grains of the same, will be one of the best remedies to break up the determinations to the parts. Or if the pulse and constitution will warrant it, a small bleeding will be advantageous. Blisters might also be used to the wrists, with good effect. But where the parts are merely relaxed in an extraordinary manner, (besides avoiding all possible causes,) every means must be used in the intermediate time to brace up the whole system, as well as the relaxed parts. To these parts the cold bath will be one of the best means; and preparations of steel, and elixir of vitriol, should be used internally, from period to period. But in this, as in the other cause of local determination, all the topical means, such as astringent injections, and cold, are to be applied, if necessary.

The daily use of cold injections (during the intervals) of water into the bowels, will both keep them free, and brace the neighbouring parts. Where there is much uneasiness, or pain in the back, a strengthening plaster will be useful. And when the relaxation of the parts are to be perceived by the touch, cool injections, of a weak tea, of oak bark, or of Peruvian bark, may be thrown up every night, or oftener, into the vagina, from period to period. Dr. Miner has recommended a pill of four or five grains of red pepper to be given every ten or fifteen minutes, (during the discharge,) in bad cases. And where there is both a general debility, and a local relaxation, by which the sanguineous system has lost its power of contracting, such a remedy should be tried, without regard to theory. In the southern states, and when the whole

* Tenesmus after purges of a drastic kind, or after flux, is said to be a frequent source of great discharges. Enemas, with opiates in them, will be proper: say twenty drops of laudanum to one gill of water.

person is cold to the touch, there would seem to be a call for some such article.

DIFFICULT MENSTRUATION, (DYSMENORRHŒA.)

This variety of the menstrual disease is known by the most violent bearing down pains attending the discharge, even when it is in natural quantity; though it does not always confine itself to this for a rule; being mostly less, though sometimes more. But the *pain* is the disease in question. It has been attributed to two very different causes: one a rheumatic association, or lumbago; the other, obstructions in the vagina, by the formation of a preternatural membrane on its surface: filaments of this membrane are found to pass off. This membrane, in some instances, gives great interruption to the discharge, entirely filling up the passages, and protruding.

It has been supposed by some physicians, that an ignorance of this species of interruption might operate unfavourably against the character of single women, who are, perhaps, the only patients; for it soon vanishes after childbearing. But it will only require a repetition of circumstances the next month, to rectify such surmises. It is, however, an obstinate disease, as well as the former.

In the first case, *i. e.* where lumbago, or other spasms associate, the principal remedies are the warm bath, up to the hips, emolient clysters, tincture of guaiacum, sudorifics, embrocations of turpentine, or camphor; applied all round from the loins; also spirits of turpentine, taken inwardly, and opium. If the discharges are sufficient after taking a dose of castor oil, a Dover's powder, containing one and a half grains of opium, may be given every four or five hours. More

Green persimmons, blackberry root, and wild geranium, are good country astringents.

For injections: fifty grains of alum may be put to eight ounces of decoction of oak bark, or half an ounce of powdered galls may be drawn with half a pint of boiling water, and strained: one ounce of either may be injected, with a syringe, into the vagina, every three or four hours: making them stronger, if needed.

may be used, if that quantity is insufficient. But where the discharges are small, some stimulants had better be first used before the opiates. One teaspoonful of volatile tincture of guaiacum, in a little milk or broth, or chocolate, may be taken four times a day: or twenty drops of spirit of turpentine, taken in milk, will do nearly as well. Should these not succeed so well, the patient may at the next time use three grains of calomel, and one of opium, at night, for four nights; beginning at the first symptom of the next month. The back may be rubbed with spirit of camphor, or with oil of turpentine, diluted at the rate of one tablespoonful of oil, to one or two teaspoonsful of spirit of turpentine. The enemas should be continued; and the warm bath in all cases. If the patient has taken a cold that has augmented the disease, or by any other means brought on a febrile state, some blood should be taken away, and the powders of nitre and antimony given; and a free use made of purging medicines. In the intervals, the patient should take great care of herself: use flannels, and *drawers*, with worsted stockings, and elastic overshoes; keep out of damp and wet, live very temperately; never suffer her bowels to get sluggish; nor eat such articles as will inflate the stomach. In the second cause, *i. e.* where membranes are formed, if they come within reach, let them be carefully taken away. Injections of milk and water, into the vagina, may be of use. Bathing will be of some service; but in extreme pain, a grain or two of opium will be necessary, every four to six hours.

TURN OF LIFE, OR FINAL CESSATION OF THE MENSES.

Very unpleasant symptoms *sometimes* accompany this period. The principal one is hæmorrhage, or

☞ There may be a few cases where a pure debility may be accessory to a large discharge; and as it will be local, it may be treated with the astringent injections of bark and alum, as in the menorrhagia. But nothing can warrant this state whilst there are febrile symptoms, as a white tongue and hard pulse.

enormous discharges: this is to be treated as menorrhagia, depending on plethora. In the intervals, it would be well to lose a little blood from the arm, and use every means of precaution; especially that of abstinence: keeping the bowels open with salts, and drinking cooling acid drinks, such as lemonade, or cream of tartar, dissolved and sweetened. But if the symptoms are hysterical, or dyspeptic, they must be treated as directed for such complaints.

There are frequently some diseases of magnitude, that develop themselves on such occasions, that have been brewing in the system; to check which, if they are inflammatory, a monthly bleeding, and issues, should be made to compensate the loss of the discharge. But temperance and prudence, will do nearly every thing; especially if joined with exercise in the open air. No woman need, therefore, let that period disturb her quiet, when so much is in her power.

WHITES, (LEUCORRHEA.)

CAUSES.—A laxity of the parts concerned, (often with a determination more than natural to these organs) lays the foundation of this disorder. Hence, it frequently follows miscarriages, tedious labours, and excessive menstruations. These greater causes are often assisted by other minor causes, which irritate the uterus and vagina: such as constipation, dancing, and other irregularities; standing up too long. One of the most common sources of disease, in the middle and lower ranks of life, is fatigue and confinement, without that recreation in open air, or bodily rest, that are so necessary to the human frame. In weakly women, with their poor fare, dejected minds, and so situated, there will be frequent cases of this disorder towards the close of the menstrual age.

The relaxing influence of summer and hot climates, is said to produce it in emigrants from temperate countries.

SYMPTOMS.—Discharges of whitish mucous from the

vagina, following the menstrual discharge, (catamenia) and continuing longer and longer, till it occupies the whole interval; and after a long continuance, changing to a darker hue, and excoreating the parts: producing pains in the back, general debility, dyspepsia, hysteria, palpitations, bloat, dropsy, and hectic. The organs locally affected are apt to be brought into more serious disease, by the long continuance of leucorrhea and relaxations; polapsus, and ulcers, may ensue.

A variety of more serious local diseases of those parts will have discharges; but they may be distinguished by the symptoms, varying from what characterizes whites: the darker and more fœtid discharges, the habit of the patient, the absence of coagulated lumps, and more certainty by examination; which will discover disorganization, and derangement of the parts; or pain in examining them, when less diseased.

The menstrual discharge is sometimes excessive, at other times deficient, in those subject to whites; which circumstances should be attended to in the general prescriptions.

MANAGEMENT.—This must correspond with the causes: when there is much general debility, there will be occasion for a general restoration, by a nourishing diet: such as mush and milk, rice, custards, oysters, light soups, poultry, and game; with choice vegetables, to suit the weak digestion. In such cases it will be necessary to abstain from tea and coffee, and from cakes, fruits, sweets, and pickles. Port wine, and sound London porter, should be diluted and drank moderately, every day, changing about. Recreation, by riding and sailing, and due rest, is necessary; using a mattress at night, and laying on that, or on a sofa, repeatedly, (for half an hour,) in the day. Great cleanliness is needful, and much attention should be paid in dressing to the season. In cases of less debility, or feverishness, the wine and porter need not be used; and the diet should be mostly of good vegetables, or preparations of eggs and flour, without butter or sugar.

CURE.—After removing all predisposing causes that

can be commanded; and putting the bowels into a regular action, by rhubarb, in small doses, and by enem-
as of cold water; it will then be necessary to ascer-
tain whether there be a total absence of febrile symp-
toms. If this be the case, the first prescriptions may
consist of three doses of elixir of vitriol, and as many
of cold camomile tea, taken daily, and alternately. If
this is not sufficient, bark and rust of iron, and port
wine, may be taken three times a day. If there is any
delay in the restoration, some astringents may be used
internally: such as alum whey, or ten grains of terra
japonica, added to the bark, instead of so much rust
of iron. To all the above remedies, it becomes need-
ful, in many cases, to add topical remedies: cold water
may be poured over the small of the back, every morn-
ing, and some injections made into the vagina. Fif-
teen grains of alum may be put to eight ounces of
water, or a drachm of nutgalls drawn into a strong
tea, or infusion, with a large tea-cup full of water: two
ounces of either may be injected three times a day;
in the meantime continuing the general remedies.
Whilst using general astringents, the bowels must be
kept regular by enem-
as and rhubarb.

But if, instead of a simple debility, accompanied
with a feeble slow pulse, there is a feverish state of
the pulse, either at certain hours, or continually; we
must not use any general tonics, or stimulants, at the
offset; but begin by giving an emetic or two of ipeca-
cuana; as well as by regulating the bowels. And if this
feverishness is not carried off, it will become necessary
to use some of the fever powders, No. 3, very freely,
so as to loosen the bowels. The astringent injections
may then have a more early application, and after the
feverishness is removed, some of the more gentle tonics
may be used; especially the elixir of vitriol, and camo-
mile tea. In such cases, a blister over the sacrum,
(rump) or on the inside of the thighs, may be advan-
tageous.

If the arterial disturbance is of an intermittent cast,
and more especially if the patient is dwelling in a

bilious country; the bark may be used in the intermission. And as the disease loses its feverish habit, if the other remedies are insufficient, the bark and astringents of alum and japan earth should be used daily.

Should the usual menstrual discharge (catamenia) be excessive at the period, it will be necessary to attend to it, by rest, light diet, acid drinks, and the use of Thatcher's astringent, and the kino astringent of the apothecarium. It may be, that the arrest of this will determine the subsequent state of these organs. But should the discharges of catamenia be very deficient, they should be encouraged by taking a few doses of balsam copiava daily; as also by preparations of aloes and tincture of steel. And in difficult menstruations, the tepid bath, and opiates, will be necessary. For pains in the back, the balsam copiava, taken in doses of fifteen to twenty drops, three times a day, in honey, may be used; and a large plaster of burgundy pitch applied over the parts, or the emplastrum roborans, or the tar plaster, may be used; as the support and perspiration occasioned, is the chief good expected from plasters.

Patients who have gone to warm climates should use gentle tonics; the cold bath generally, if possible; and at any rate locally, by pouring water over the loins; and live very abstemiously, on light and appetient food. Patients in a plethoric state, with this disease, are hardly objects of medical prescription; for a lower diet, and exercise sufficient to reduce their corpulence, with a little prudence and attention to their bowels, is all that is needed.

DISEASES INCIDENT TO PREGNANCY, AND FOLLOWING PARTURITION.

CHAPTER XI.

It cannot be expected that such a number of diseases as fall to the lot of females during, and subsequent to, pregnancy and parturition, could be extensively treated in a popular book of small dimensions. The writer wishes to apprise those ladies, who consult the following directions, that it is not his intention to keep them out of the hands of the physician, but merely to give them such ideas as will enable them, in due time, to distinguish those affections that require the medicinal attention of an experienced practitioner, from such as they may manage themselves.

Management during pregnancy; extracted from the celebrated Dr. Hamilton, of Edinburg:

“Rule 1. The strictest temperance and regularity in diet, sleeping, exercise, and amusements, are to be observed.

2. Overheating, irregular passions, and costiveness, should be constantly guarded against.

3. The hazard of shocks from falls, in walking and riding; and from bruises, in crowds; of frights, from bustle, &c., should be avoided with the utmost circumspection.

4. The dress of pregnant women ought to be loose and easy. Jumps (corsets) secured by straps and ribbands, without knots or buckles, should be used soon after conception, and continued till delivery.

5. Pregnant women require free pure air. Their inclinations should be gratified in all reasonable things, and their spirits kept up by a variety of objects and company.

6. When complaints of a common kind occur, they must be treated as such: avoiding all rough medicines, especially at the time of quickening."

The above rules are particularly necessary to those who fear abortion; and no less prudent in every case. But the author supposes corsets only to be needful in the feeble.


SICKNESS AT THE STOMACH, LOATHING, AND VOMITING.

These are very common complaints in early pregnancy, especially in towns, where the air is close, and little exercise used out of doors. If riding out in the morning, and moderate doses of magnesia and rhubarb, in mint water, be insufficient; the patient's state must be particularly inquired into. If the tongue is foul; a small puke of ipecacuana will be needful. After which a little elixir of vitriol, taken three or four times a day; or a little mint water, will generally quiet these irritations. But it may be that the patient takes more food than she can digest, or more than is proper, even if digested. These things must be regulated, to expect relief. When that is done, a dish of tea, taken before rising in the morning, will generally prevent the sickness so common at that hour.

VERTIGO AND DROWSINESS.

These affections are only to be feared when the patient is of full habit. In such cases, bleeding should not be delayed: repeated small doses of salts, and a retrenchment in food, with an increase of exercise, are also necessary. But in such cases as have none of the above causes, it may proceed from the state of the stomach; and if the circulation is weak, there can be no doubt of the propriety of using a gentle puke of ipecacuana, after which three doses of elixir of vitriol may be used daily, and some good bitters in the morning: keeping the bowels regular, with rhubarb and magnesia. Exercise in the open air is peculiarly ne-

cessary; and great attention to diet: rice, and mush and milk, will be good articles, with a moderate portion of light meats. As this complaint is somewhat of a dyspeptic nature, it will be well for the patient to avoid such articles as are improper for dyspepsia.

 See the chapter on dyspepsia.

SWELLING OF THE BREASTS.

These are to be treated with a perfect freedom from compression by stays, &c. A few embrocations of cream, or sweet oil, as warm as the blood; and a tepid solution of castile soap, now and then, to clean off the oil, and bathe the breast, will be useful.

HYSTERICIS AND FAINTING.

These affections are most common about the time of quickening, (say, at four and a half months.) They are not of a serious nature unless they have been brought on by falls, blows, or violent passions. In general, it will be sufficient to keep the patient horizontal, on a matrass, and give her free air; and damp her face with a little vinegar and water.

Thirty drops of hartshorn may be given in a tablespoonful of water; and if not sufficient, a teaspoonful of tincture of assafoetida, with half as much ether, may be taken, and repeated. A dose of elixir of vitriol, say twenty drops in a wine glass of water, will be proper, by way of a change; (when a repetition of the medicine is frequently needed,) as warm articles might be injurious, if given too often. But when the sources of fainting and hysteria, are blows, &c., or the patient very plethoric, or with strong pulse, bleeding and purging, with moderate doses of salts, or castor oil, will be more proper. The use of elixir of vitriol, tincture of iron flakes, good bitters, and riding out, will prevent returns in all cases of debility. There cannot be too much attention paid to the bowels: daily passages by an enema of cold water, or by magnesia and rhubarb; or some gentle apperient, will be neces-

sary. Plethoric patients will remember to live abstemiously for the whole period, if they expect to get rid of this disease, and some others of more consequence.

INCONTINENCE OF URINE.

This may happen at any period of gestation. The patient must not attempt a forced retention; of course she must avoid company, and abstain from much drink of any kind. A reclining posture, on a sofa; the use of mild diet, and great attention to cleanliness, are the best palliatives. Sponges might be temporarily used in emergencies.

DYSURIA, OR DIFFICULT AND SUPPRESSED URINE.

When this disease occurs after the fifth month, it is not of so great moment. It may be relieved by warm clysters, and fomentations: drinking of barley waters, ærated waters, and taking a few doses of sedlitz powders, or castor oil. If this will not do, the catheter must be used. But a more serious suppression arises, at times, from the end of the third month to the fifth; occasioned by what is termed a retroversion of the uterus. The fundus, or bottom of that organ, being pressed down against the pereneum, where it can be felt; whilst the neck of it, by its close connection with the neck of the bladder, precludes the urine from passing. It is necessary, in such cases, to have a skilful hand to take the urine away, twice a day. The disease is left, by some practitioners, to nature; but Dr. Hamilton seems to think some assistance should be given. Particulars cannot be introduced into such a book as this.

Jaundice and Piles, are diseases of pregnancy.— See the chapter on those diseases.

OEDEMATOUS, SWELLINGS OF THE LEGS.

This is a disease of the latter months of pregnancy, owing to the pressure of the enlarged uterus, and the

sedentary life of the patient. When they are slight, frictions with the hand, or with flannel, and a recumbent posture, are sufficient; together with drinks of cream of tartar, and a few light saline purges: such as sedlitz powders. Stirring about, when off the sofa, is also necessary. But if they become very large, or likely to burst, some small incisions, as large as the orifice, made to bleed, about three or four inches below, and outside of the knee, may be made, and bandages used from the toes up to the incisions: there some sponges should be fastened, to receive the exudations of water from the incisions, and often changed. If the person lives in a bilious country, or there is any suspicion of obstruction in the liver, some blue pills must be used; but not so as to salivate. The bowels should be kept very regular: two or three pills made with rhubarb, and a grain of salt of steel to each, will be proper.

VARICOSE VEINS.

The enlargement of the veins from the obstruction made by the gravid uterus, is the cause of the veins enlarging in that irregular manner, termed varicose. They are to be pressed moderately with a flannel roller: beginning at the toes, and ascending so as to cover all the limb neatly.

PAINS IN THE BACK, AND COLIC PAINS.

These pains must not be suffered to continue, or they will often produce abortion. Some gentle purges of castor oil, must be used, and the patient should recline much on her sofa. If the pains in the back are severe, some blood should be taken, and the parts rubbed with opodeldoc, and the back be supported with a strengthening plaster, (*emplastrum roborans* of the shops.)

LONGINGS.

These must be indulged to a certain extent; unless there be something very forbidding in the article wanted; for it will disturb the whole system very materially,

to have the mind and the stomach unsatisfied and irritated. The more dubious the article, the smaller the quantity used must be, till its effects are known.

CRAMPS.

These are affections of the latter months: frictions with the hand, a dry sponge, or soft brush, may be used; as also frictions with opodeldoc; or ether and spirit: they should be applied warm. Long worsted stockings and flannel drawers, worn day and night, will be very serviceable. The patient must take care not to sit long in one posture, nor to get cold feet.

CONVULSIONS.

These are alarming in a high degree. They have either an apoplectic, or an epileptic bearing; and are generally preceded by symptoms that should claim the immediate attention of the patient: such as intense head ache and fulness, pains about the regions of the heart, and feelings of irritability in the stomach, bowels, and nerves.


There appear to be four well known sources of these convulsions: First, an overful and plethoric state for pregnancy. Secondly, blows, falls, and other violences. Thirdly, inanition and exhaustion from hæmorrhage, tedious labour, or any other cause. Fourthly, an extreme irritability of habit, produced by the distension of the uterus. And perhaps in some instances, (according to Dr. Hamilton) from the peculiar fixture of the fœtus, producing unnatural emotions. It would be well to look over the chapter on epilepsy. Hysteric fits are to be distinguished from convulsions by their lightness, and absence of foaming at the mouth, and their quick passing off when the agitation is over.

In the two first sources of fits, copious bleeding, and saline purges, with blisters, and a low diet, are the remedies: even when from blows, blisters are useful.

In the cases of pure exhaustion, the stopping of the hæmorrhage: the use of cordials, bark and port wine,

opiates, and astringents, are useful; taking care to keep the bowels regular, by a little rhubarb, or by enemas of cool water.

When pure irritability is the cause, opiates are the main stay, with great regularity in every respect. The warm bath is highly recommended by Dr. Denman, both previous, as a preventive, and at the time of a fit. But in this latter application nothing more can be done in such a state of agitation, than to apply some warm water, by large sponges. He is also of opinion, that the warm bath may be applied in other cases, after a proper depletion. This dreadful affection attends early pregnancy, advanced pregnancy, and about labour time. It is more and more dangerous as the time advances. Delivery, when it can be effected, will be always a most desirable event. A very few fits will take off the patient in the latter months; for they are violent beyond all other convulsions; often defying all the force that surround the patient, to restrain her from any thing that she attempts. Opiates may be given by the bowels: about three grains, or an equivalent of laudanum, should be used for an enema; six grains is a very large dose, this way. The patient will sometimes lay in an apoplectic state after these fits. Sinapisms, stimulating clysters, (say thirty drops of hartshorn in a soap clyster) are then to be used to rouse the patient; and when lying long in this way, Dr. Hamilton recommends warm bathing, often repeated, to relax the uterus, and bring on labour, as a last resource.

 The most experienced medical aid must be called in quickly, in such cases.

HÆMORRHAGE AND ABORTION.

Abortion most frequently takes place from the tenth to the sixteenth week; and after passing over the latter period, it is more common from the fifth to the seventh month. A great many constitutional and peculiar causes, that cannot be noticed here, will cause abortion; but the more common are the following: fulness of

blood, blows, falls, passions, general and local debility, frights, surprises, long stooping; and stretching out the arms whilst in an erect posture: such as is necessary in nailing up, or fixing curtains; dancing and carousing, with the vicissitudes occasioned by changing the air of a hot ball room, in a thin dress, for the frosty air and pavement of the street; long walks, or hard rides, costiveness, and voluntary retension of urine. To these, though but a part, may be added drastic purges, poisons, and essential oils in large doses. These last articles are used by wicked women, expressly for the purpose of procuring abortion.*

The frequent returns of pain about the loins, bearing down, and clotty discharges of blood, with films, and a sinking of the protuberance of the breasts, will readily distinguish this complaint from a regular and gentle flow of the menses, which will sometimes continue for some months after pregnancy. Great sickness, or nausea, will also attend where abortion is at hand. The discharges and sickness generally continue till the fœtus is expelled, and then ceases. But where there is a constitutional disposition to this disease, and in some few other cases, the hæmorrhage continues in an irregular way: the coagulated blood filling up the cavity; and then producing great pain, till it is excluded. In this way there will often be many repetitions. The farther the patient is advanced in pregnancy, the greater the danger from hæmorrhage.

As soon as the patient finds her situation as above described, (threatening abortion) she should retire to her mattrass, or sofa, and take nothing but some cool acid drinks, of lemonade, or of cream of tartar, or of vitriol and water. Her bowels should be emptied with an enema of salts, but not warm, (merely aired,) and a spoonful of vinegar should be added to the salts. If she is full of blood, or has had a fall, or other violence, some blood must be taken from the arm.

* One of the most distressing and dangerous sources of hæmorrhage, is the wrong placement of the placenta: covering the orifice of the uterus; and of course must be ruptured before the birth can be effected.

Should these means not be sufficient, some cool alum whey may be drank, and cloths, wrung out of cold water and vinegar, laid on the thighs for a short time: renewing them as they get warm. It will not be often that more than these, with a thin covering, and an airy room, are necessary till after abortion. In great discharges that follow, some pounded ice, in a bladder, may be used instead of the cloths, or a dissolving mixture of salt and water, in a bottle or bladder. If there is much spasm about the abdomen, an opiate will be useful: two grains of opium may be combined with three grains of ipecacuana, and the alum whey continued; but opiates will not do where there is inflammation. Where inflammatory symptoms, with fever, keep up, notwithstanding the discharges; bleeding, and nauseating doses of ipecacuana, or of blue vitriol, will be beneficial: one grain of each combined, may be used every hour, for four times. Those nauseating medicines, however, will not be proper where there is a spontaneous nausea and puking. The elixir of vitriol, and tincture of kino, will then do best; and a blister may be laid on the stomach: as from its sympathy it may divert the action of the uterine vessels. The last, and perhaps the best resources in all obstinate cases, are injections into the uterus, with a syringe, having an elastic or other pipe, five or six inches long: a cold infusion of galls, pretty strong, will be very good for such purpose; as also blackberry root tea; or a solution of alum.—See the apothecarium. But Ruspini's styptic is the most certain. These injections are to be used at the moment when there are intermissions in the discharge. But when these are incessant, and the discharge great, in the last months, or after a labour, there is no other remedy but that of filling up the vagina by a plug of cloth. Dr. Burn, (quoted by Dr. Thomas) recommends a stout piece of soft cloth to be dipped in oil, and then moderately squeezed: this cloth is to be pushed in, with the finger, by piecemeal, till it fills the lower part of the vagina; the residue of it, which should be considerable, is to be pressed against

the external parts, and secured by a bandage passing between the thighs, and each end fastened to another bandage round the body. Some small pieces of ice, in a little bag, are directed to be first inserted, or the part of an isicle will answer, if it can be got. A small piece of sponge, dipped in the coadjuvating mixture, may be first inserted, where no ice can be obtained.

AFTER PAINS.

These pains follow slow labours. They are not so common in the first labours. Bandages should be put round the woman, if they have been neglected; first rubbing the abdomen with warm oil. Enemas of warm oil may also be given; and if very severe, opiates in the form of Dover's powders; taking care to give a little rhubarb, or castor oil, after it, to prevent costiveness. The parts may be often rubbed, or fomented, if needful, with decoctions of bitter herbs, or a large poultice of flaxseed may be laid on them.

IRREGULAR LOCHIA, OR AFTER DISCHARGE.

When the lochia are too free, some astringents should be used: such as those in the apothecarium, formed with vitriol, kino, and opium; or Dr. Thatcher's astringent. Alum whey may also be used; and when from pure relaxation, a decoction of bark, with tincture of flakes of iron, and other tonics, in addition to the astringents. When the lochial discharges are deficient, warm fomentations, warm oily clysters, and purges of oil, are necessary. But where the discharges have been very great preceding, or at a delivery, the lochia will often be very small, and require no attention. Some women are noted for having very little.

MILK FEVER AND INFLAMED BREASTS

About the third and fourth day after delivery, the breasts swell; a shivering, and some fever, will sometimes attend, and the milk refuse to flow through the

nipples. This event should be anticipated; and to prevent it, the child should be applied as early as possible to the breasts. If the nipple is insufficient, it must be enlarged by the use of glasses, or an elastic bag, and by drawing. Some warm oil should be rubbed on the whole breast, and a purge of salts taken. Abstemiousness, from both meats and drinks, will be necessary to prevent further enlargements, and actual inflammation. In general, as soon as the milk flows freely, by suction and the child's assistance, all the swelling subsides. But this is not always the case: and the breasts will continue obstructed, and turn red. In such cases, large cold poultices are to be applied, made with eight grains of sugar of lead to one ounce of water, and applied often. If the patient is plethoric, she should be bled and purged; or if the lochia are small, and her health good, (excepting this obstruction) she may be bled and purged. By these means the inflammation will often recede. But when it will not, no time should be lost to hasten and restrain the extent of suppuration. Warm poultices must be applied, and if it is extensive, threatening a large suppuration, a blister must be put near, *but not on*, the inflammation, (towards the ribs and back.) It is often astonishing to see how unexpectedly, to the patient, the blister will act. It will relieve the pain in the breast, bring on a speedy, and *smaller* suppuration, in half the time of a poultice alone. This must be opened, and dressed with a poultice *one day*, and then with lint and basilicon.

PHLEGMASIA DOLENS, OR MILK LEG.

Dr. Dewees seems to have taken great pains to describe this disease, and to investigate its pathology. We shall therefore adhere pretty closely to his description. The pain commences about the hip, groin, or more rarely the back: an elastic white swelling, of exquisite sensibility to the touch, extends over the whole leg and thigh, including one half the labium pubendi,* on the side where the disease is located.

* Making an exact division of the person at those parts,

The intumescence is perfectly white, in most cases, and does not pit, as in dropsy. But after about eight days, with proper treatment, it becomes œdematous. It is no uncommon event for the other side to take up the disease as the first declines. The milk in the breasts disappears during the disease.

CURE.—This disease is now treated very differently from what it was fifty years past. It is considered as an inflammatory affection, and treated with free bleeding in the early stages; as also by cooling purges, drinks of cream of tartar, and other acids. Nitrous and antimonial powders are also to be given on such days as are not employed in purging.

For a topical application, the fumes of vinegar that have been imbibed by means of warm bricks, are recommended by Dr. Dewees. A hoop is made to support the bed clothes, over the limb, so that the vapour may pass to every part of it.

But there can be no doubt, that when the inflammation is of less magnitude, that gentle stimulants to the parts: such as soap liniment, with a portion of spirit of ammonia in it, with the aid of purgatives, will often relieve; for this was the older practice, and in feeble constitutions may still be preferable.

PUERPERAL FEVER, OR FEVER OF LYING- IN WOMEN.

A few days after parturition, (from two to eight) and the sooner the more dangerous: the woman complains of pains and restlessness. These pains begin in the head, hips, legs, and abdomen, (over the region of the womb) in which latter location they finally concentrate; producing soreness to the touch, and tenseness. A chill frequently ushers in a fever, with a rapid pulse, and difficult breathing. The milk, if formed, recedes, and if not secreted, the material is retained.

The bowels are in general irregular: being sometimes costive, and at others loose, with passages (not unfrequently) of a preternatural appearance. The mind

of the patient is often affected: foreboding evil; whilst the affections towards her infant are paralyzed. Perhaps it may be a loss of memory that produces this common character. The lochia (or natural discharge after parturition) becomes diminished, more or less.

The urine is generally scanty, and made with pain. When perspiration is brought on by the excess of fever, heat, or pain, it does not mitigate the disease. There is a great latitude in the degree of this fever, and always some danger. When it continues, and the pulse gets up to 140, the tongue brown and dry, the belly much swollen, and the stomach begins to give way, with vomiting of unusual contents, there will be but a small hope of recovery.

It is easily distinguished from a milk fever, by the following characters, that vary from puerperal symptoms, and are appropriate to milk fever: full breasts, absence of abdominal pains, vigour of the patient's mind and body, a regard for the infant, and a quick decline of disease; or a few after pains, which are always of an intermittent character, going and coming. It is, however, very important to know immediately whether the patient has a puerperal fever, least the time of relief should slip away.

From a variety of circumstances, viz. the occasional commencement of this fever *before* parturition, its frequent ending in an acknowledged typhus state, its becoming epidemic at times, its frequency in the hospitals of Europe, the effusive inflammation that characterizes it; and its attacking mostly those in the lower walks of life: (to all of which may be added the infrequency of it when the patient has all the advantages of good living, air, season, diet, and attention;) there can be little doubt of the propriety of considering this fever as approximating to typhus. But its relation to sex, and invariable local paroxysm, must exclude it from the class of pure fevers.

MANAGEMENT.—The cleanliness of all the clothes (body and bed) of the room and furniture; attention to remove every source of smell and noise; with the ex-

clusion of light, are here peculiarly necessary. If ever a good nurse, with full powers to prevent intrusion and regulate every thing, is requisite, it is in puerperal fever. Ventilation is absolutely necessary, especially in summer; and the sprinkling the floor with a solution of chloride of lime, should not be neglected. When this cannot be had, wiping the floor, in summer, with a damp cloth, and sprinkling over it a few branches of pleasant shrubbery (but not flowers) will have a good effect; or sprinkling it with vinegar, if the smell is agreeable to the patient.

The diet should be of the lightest kind: such as panada, sago, gruel, rice, &c., and when the disease advances, thin chicken broth and boiled custards. The drinks must partake of the same character, viz. cooling at first, and then more antiseptic and stimulating: as apple tea, cream of tartar and water, toast and water, jelly water; and then sound porter, well diluted. None but the strongest porter should be used; for porter that is made weak is nearly always sour and flatulent; whilst prime porter is a fine bitter. Port wine, and wine whey, in a very low or advanced stage, will be requisite.

In winter the room should be kept merely comfortable, to those who are not sick: an increase beyond that point will be improper, as also an overload of bed clothes: for it is an inflammatory disease in its first stage.

CURE.—Bleeding must be performed early in the disease, whilst the marks of inflammation remain, and the integrity of the constitution remains firm: this must be repeated till the pulse and pain feel the good effect. If the pains continue after the second bleeding, and the use of the other means hereafter directed; there is no good reason to forbid blistering, (which may be done for conveniency higher up; say above the navel:) for blistering often does equal good in pleurisy, though on the opposite side to the pain. The bowels, if costive, should be opened the first day with a purge of salts, or castor oil, and kept regular. And even if they be loose at the onset, a dose of castor oil will be highly bene-

ficial; seeing that the purging mostly depends on the inflammation extending to the bowels. In this case, *i. e.* the looseness, two grains of ipecacuana, with a little magnesia, every three or four hours, will be likely to bring them to proper discharges, and may be used on the following day to that of giving the castor oil.

Diaphoretic and alterative medicines have an excellent effect in puerperal fever; especially the James's powder, or the pulvis antimonialis: five or six grains of the latter, with ten or fifteen of soluble tartar, may be administered every three or four hours during day and *night*. Clutton's febrifuge may have a trial, if the antimonial fails: it is very important to get a remission to exhibit the decoction of bark, which is our sheet anchor when inflammation subsides, and must be freely used.

Some physicians use mercurial frictions, and if they could be regulated so as to have a *moderate* effect on the system at that particular juncture, where inflammation is giving way, and bark could not yet be introduced, there would be every prospect of success from it. But the uncertainty of hitting the right moment, and the greater uncertainty of producing a degree of mercurialization to please us, makes it a ticklish medicine to use. Nevertheless, we might push it to a certain extent, and stopping, finish the process with blue pills: for every physician must be aware how easy it is to salivate when they have been giving previously mercurial purges, or using frictions of the ointment. But to those who have to manage without a physician, they had better resort to moderate stimulants to test the degree of inflammation, when they are the least dubious about exhibiting bark: such as camomile, columbo, baccharis tea, diluted porter, Virginia snake root, and drinks acidulated with elixir of vitriol.

The use and quality of the medicines must be greatly regulated by the degree and character of the fever. The state of the patient should be well considered: for the disease will be much regulated by the predisposition: thus,

when the patient has been subject to all those nuisances mentioned as the sources of typhus: such as filth, stagnant water, close apartments, bad diet, &c., we may reasonably expect that the inflammatory symptoms will soon shift to those of a lower grade; and we must anticipate all we can. Whilst on the other hand, if the patient has had all the advantages of good living, has been temperate, dwelt on airy dry ground, in a good house, well ventilated; we may expect that the sources of the fever (though unknown) are not extensive, but more personal, and that the fever will hold out, comparatively long, in its inflammatory state, and yield to proper treatment; and then we must not be in a hurry about our tonics, nor use them of a very stimulating class, least we prolong the disease.

PERITONITIS.

This disease has only of late been divided from puerperal fever; and as it leads to perspicuousness in the management and cure, may be very well. It consists in the inflammation extending beyond the uterus to other viscera. It is a more acute disease, and requires more bleeding. Blisters are not so proper; but all the antiphlogistic remedies must be pushed to their greatest extent. A change to a lower state of disease, in this, is more apt to be fatal.

DISEASES OF CHILDREN.

CHAPTER XII.

CROUP.

CAUSES.—A moist cool change of atmosphere, especially when blown from the water upon those who are strangers to the place, or who have been, in general, secluded from it. All the causes that produce inflammations of the trachea and lungs (under certain modifications) produce croup. The most unmanageable croups arise from a metastasis of the matter, or action of inflammation, or spasms of some other disease; so that it is found in the slighter cases of scarlatina,* in the after part of measles, whooping-cough, and pleurisy; as also to change about with the symptoms produced by poisonous articles.† Children are mostly the subjects of this disease; but boys of twelve years have died with it; and many practitioners assert, that they have had adults with tracheal inflammation, which had most of the symptoms of croup; but perhaps never with the membrane. Some children are subject to it on getting a violent cold, by any means; whilst others will have pleurisy, sore-throat, or coughs, without ever getting croup. It may, therefore, be a metastasial

* There is a strong resemblance between the circumstances of small-pox, when too coolly treated, producing imposthumes; and slight cases of scarlatina, (by the exposure) producing croup. If children were confined, and their throats covered with flannel, they would be more likely to escape.

† In a case attended by the author, the *solanum nigrum* first purged for two days; on that being arrested, croup ensued for nearly one day; it then passed off from the trachea, and attacked the muscular system, with a permanent rigidity about the breast and abdomen, which terminated in death.

habit that causes this disease to be so frequent in some children.

SYMPTOMS.—Sometimes it approaches with the common symptoms of cold, in the day, and at night puts on the peculiar ringing cough, that distinguishes the disease. Very happily it requires no judgment to determine the nature of the cough. Every domestic, after once hearing it, will readily recognise the barking cough. But in most cases, after some restlessness in the night, an off-hand, hoarse, ringing cough, gives the alarm; which, in a few minutes, is confirmed by repetitions more clear and decisive. On examining the pulse, there will be found, generally, more or less fever; and the throat, when inspected, will also show signs of inflammation; and often after a while have a whitish covering, reaching to the palate, differing from the sordes of common cold: being more like the first formation of aphthae, in children. The coughing continues till morning, when it so completely recedes, that unless the pulse is examined, there will be scarcely a trace of the disease (in some instances) perceived. But this is only a truce till night. As the disease progresses, it fastens more permanently on the respiratory organs: the lips turn blue, the face swells, the child struggles every few minutes for breath; and dies from suffocation. This, in general, is caused by the access of air to the lungs being cut off by the accumulations in the trachea; though it has been asserted, that in some dissections not a vestige of any accumulation was to be seen, and therefore like the case from poison, it must have been a simple inflammation, or a spasm of the muscles, about the trachea. A complete membrane will sometimes form on the tube of the trachea, and be separated by further discharges, of cream like appearance, between that and the trachea; which last discharge being excluded from the air, remains fluid, and pushes the membrane, on all sides, together: filling up the trachea. A case or two of this

kind, from scarlatina, was inspected by the author.* This complete membrane may, therefore, be more appropriate to eruptive translations of morbid matter.

MANAGEMENT.—The patient should be laid in an airy place, with assistants to hold him up, and give him drinks. Baths should be kept in readiness. A sleepy nurse, by not giving notice of returns, may lose the chance of relief.

CURE.—The failure to cure, when called in time, turns on two points: first, the want of courage and experience to give medicines of proper strength; and secondly, on neglecting to secure the advantage gained. An insensibility to pukes is not only a sure mark of the disease, but a certain warrant for the physician to reach the sensibility by larger doses. It may, however, be prudent to begin with twelve grains of ipecacuana, and a half or whole grain of tartar emetic. If this pukes, a dose of six or eight grains of calomel may be given, following it with more calomel, in five grain doses, every three or four hours, till it operates; or with another puke, if the breathing is difficult, instead of waiting for the calomel to operate. Warm bathing, and blistering the upper part of the breast, may also be practised. But when the fever is considerable, and such pukes have not operated, we must rouse our courage to take some blood, and administer a grain of tartar, every quarter of an hour, for eight times, if needful. If that does not succeed, three grains of tartar emetic may be given in a single dose, every half hour. Should this fail after taking from nine to twelve grains, the blue vitriol may then be used, three or four times, in four grain doses, every half hour, combined with a little ipecacuana. Warm bathing will sometimes cause the emetic to operate. In the meantime some blood must be taken again, in proportion to the fever. Sometimes a very good vein may be obtained in


* All the children who had angina badly, in this family, and were confined, got well; and two, who were so slightly affected with scarlatina as to be out in the open air, died with the croup. There is no doubt, however, of its sometimes following angina maligna, erysipelas, small-pox, aphthæ, and even rheumatism.


the back of the hand, where any person, with a sharp lancet, may bleed safely. In a very difficult case, succeeding pleurisy, after using the tartar, and then the blue vitriol, the tartar was resumed a second time; and then completely succeeded. It would be well to lance the gums if any teeth are protruding. The purging, with repeated doses of calomel, is to be assisted with enemata given every half hour. It is no uncommon thing for a child to have croup, and be relieved by a puke; it is then neglected till night, when the croup returns, and a puke gives it a second relief; it is then suffered to rest till another night, when the croup returns, and a puke is tried in vain. This plan is the destruction of half the cases. It is absolutely necessary to keep the primæ viæ under action by calomel, *all the day*, even after the child has not a symptom left. The purgatives are to be continued for two days at least, to make a sure cure; though in more moderate quantities, and in other articles than calomel. As the complaint is so often a metastasis, and there is so little foundation for making two or three stages, and these are only to be observed in *some* cases; the author would discountenance every idea of the kind, though supported by great names: for it would be apt to lead young physicians into error, and a neglect of the best practice. A firm blow must be struck off hand, followed up by an unceasing counteraction of the disease. For subsequent partial disease, (though there is very seldom any,) Dr. Cox's syrup is a good article, as also seneka tea;* but no subsequent disease is to be trusted, unless it be where measles, or hooping-cough, have preceded, or where the child has weak phthisical lungs; then there may be a hanging on of some cough not really croup, but the effect of croup and the former disease. Nor are we to trust to snuff plasters or seneka to cure croup: they have their places, but

* One ounce of seneka may be made into eight ounces of tea, and a dessert spoonful, in syrup, given every four hours. This article may be made so strong, by boiling it down, as to be unsufferable to the fauces; producing strangulation.

not where death is peeping into the bed chamber: when the door is shut on him, we may take them into consideration. When children have signs of croup in the day, the use of a large dose of calomel, especially when it sickens, will often prevent that increase at night, which is so usual. No disease, so much requires taking it in time. If any one remedy was selected to cure croup, besides repeated emetics, the plan of Dr. Hamilton would be far the best, viz. to give doses of five grains of calomel, every three or four hours.

In a hearty child of four years of age, after the lips had become swollen and blue, from only sixteen hours disease; the author has given four doses of tartar, of three grains each, every half hour; then two doses of calomel, ten grains each, and some castor oil; applied a blister; took blood twice: five ounces each time, from the back of the hand; gave numerous enemas, and bathed her. All in twelve hours, with full effect. And then followed up with oil and salts twenty-four hours more.

 There are families where the children are very often affected like croup, but where the disease does not go on to suffocation. And where there have been repetitions of such cases, so as to make the family judges of the case, they might begin with croup syrup instead of a more vigorous plan; but they should be well certified that it is only a slight case. Perhaps the pulse will determine this point: for if it be febrile, no palliatives should be suffered, but an instantaneous operation carried on by emetics and calomel. Where any circumstances have prevented a blister from being put on over the breast, the snuff plaster recommended by Dr. Godman may be applied. Some physicians apply large poultices of flaxseed; whether these are better than simple volatile liniment, or the volatile alkali enveloped in some lard, (see the apothecarium) is uncertain; the snuff plaster, however, might be used as an assistant to the emetics.

 All the above doses are suitable for children from four to seven years of age.

HYDROCEPHALUS.

This disease prevails mostly in children from two to seven years of age; though it is sometimes found as late as the twelfth year. The grade of inflammation is greater than in dropsy, and approaches phrenitis.

CAUSES.—These are rather obscure and various. It has been attributed to all those causes that produce inflammation in the brain: whether of violence, fever, or irritations on some portions of the *primæ viæ*. Costiveness has been particularly noticed. It is more than probable, that irritations of most any other organ of the body may be translated to the brain. The author has seen hydrocephalus produced by the imprudent use of opiates, in whooping-cough; which by its constipating effect is well calculated to inflame the brain, whilst any of the organs of the body are labouring under febrile irritations.*

SYMPTOMS.—It has sometimes come on very insidiously by a fit; or with little or no premonitory symptoms; but, in general, there is considerable fever, and often (at the onset) a *pale* countenance and constipated bowels. If the patient is old enough to complain of pain, he will point to his brows: complain of the light, and of noise. The eyes will have, in many cases, a suffused redness, and marks of great sensibility: nausea and vomiting, disturbed sleep, and occasional screaming, are common symptoms. Upon raising him up, he immediately desires to lay down again, or pukes. A general restlessness, and moving of the head ensue, with a flushed face instead of a pale one; the hand is raised frequently towards the head; at length the pupils dilate, and become insensible to light. Comatose symptoms now prevail. Dark discharges sometimes issue from the nose; and the patient sinks, or is perhaps carried off in a convulsive fit. Ten days to two

* Like croup, it has been in some cases a family disease; and in some parts of Germany the hospitals are full of cases that scarcely ever recover: showing that there may be organic and endemic predispositions to this disease.

or three weeks is the usual time of the whole range of disease. In many cases the pulse will fall off to natural, or become intermittent; in others be excessively quick and small, before death.

CURE.—This must depend on an early intimation of the disease; for after it has advanced to any length, it will seldom yield to any plan that is now known: seeing that the brain is oppressed by an effusion made during the first, or inflammatory stage of the disease. The bowels must be purged very freely, and kept quite free, as an indispensable requisite, be the means what they may, to answer the purpose. Very large doses of medicine are sometimes requisite for this purpose: mercury should not be used at first, if it can be avoided, as a purge.* Castor oil, senna and salts, or jalap, will be good articles. Bleeding is the next great dependence: this must be large for the age, and repeated. Some physicians have ventured to bleed to fainting, and opened the temporal artery. A blister must be put on the head; the feet should be soaked, and the ankles blistered; and when purges are not given, some nitre and antimony, (in fever powders,) may be used every two hours. As soon as the depleting plan is fully performed, mercurial ointment must be rubbed on the blisters, morning and night, till some effect is produced; and small doses of calomel given by the mouth. Thin drinks of gruel and barley water must be *regularly* administered to the child.

Enemas of glauher salts may be frequently given, at any time. The head should be always elevated, and a mattress used, and the room kept cool and still. Cold applications to the head are used by some, but they are doubtful.

DENTITION, OR CUTTING OF TEETH.

This is always a painful time with children, but it is only in certain cases that it amounts to disease.

* There can be no question, but what mercury augments all inflammations in their active state; and every practitioner must have found out that mercurial purges will leave some of the metallic impression.


Much depends on the constitution of the child, the season, the place, and not a little on the advantages of good nursing and living. In a hardy child, not over fed, and kept clean, there will seldom be any thing but a local irritation, and consequent crossness: more especially if it be in spring, fall, or winter, and in the country. Whilst on the other hand, a child of feeble, or irritable constitution, over fed, badly nursed, and living in town during the summer months, will be most seriously diseased. Fevers, laxes, and perhaps epileptic fits, will sometimes be the consequence.

SYMPTOMS.—The child becomes cross, sleeps badly, and starts in his slumbers. He also becomes feverish, and a cough is not unfrequent. He slabbers at the mouth, introduces his fingers on his gums, which are hot, red, swollen and spreading; and on being touched show great sensibility. The bowels are much disturbed in general, and very loose, with greenish, slimy discharges. The urinary passages are apt to feel the effects of inflammation extending to them: producing mucous discharges. Some authors have noticed a puffing of the upper part of the feet. When inflammation has so extended, epileptic fits are apt to occur.

MANAGEMENT.—Much depends on keeping the child very clean and cool, walking and riding it out in the fresh air, defending it in its slumbers from flies, musquitoes and noise. A mattress is greatly to be preferred to a feather bed, to lay on. The diet should be one half only of the mother's milk; and the rest of rice water (that is, let her waste one half of her milk.) But though it is necessary to use only one half of the usual quantity of milk, it is a fatal error to wean the child at such a time. Flannels must be used in cold and temperate weather. For children who are weaned, rice, mush and milk, and thin broths, will be proper for diet; no coarse or fat meats, must be given.

CURE.—In much fever, and all inflammatory symptoms of high degree, threatening fits, bleeding will be requisite. The bowels must be freely opened with

oil, if they are not so already. But if they are loose, emetics must be used: five to seven grains of ipecacuana is the least. After those evacuations have been made two or three times, small doses of ipecacuana, with a little soluble tartar, may be used; say one grain of the former, and five of the latter, should be taken every two hours, in order to relieve the feverish state. If *much* cough worries the child, (which may be the case from a concomitant cold) a blister on the breast will be requisite. The gums must be freely and frequently lanced, if necessary; disregarding the fear of their becoming harder. Every cicatrix is easier broken than sound flesh, and more insensible, and this is just what is wanted. The gums may be washed very frequently with cold water, or with a little alum and water; and when we are sure that the inflammatory symptoms are sufficiently reduced, opiates and astringents may be used, if needful. Bathing in tepid water, at night and morning, will not only allay irritations, but induce sleep, and promote cleanliness. The jaw teeth must be lanced by a crucial incision, to let them out more freely. In case of fits, a blister must be put on the breast, the child bathed in warm water, and an opiate given immediately. Warm clysters of oil may also be injected; and then some castor oil taken.

 See the section DIARRHEA for astringents, as also the apothecarium.

FITS IN CHILDREN.

Besides teething, worms, poisons, acrimonies, and foreign articles in the intestinal canal, children may have various other causes of fits: pins may be sticking in them, chegres (a small tick) have sometimes been found to produce them, after laying with sportsmen, or from having been carried out by nurses after whortleberries, &c. Dislocations and fractures, unnoticed, may also be causes;* so that a general inspection and

* One of the author's children had a fit, from looking at a favourite dog whilst in fits.

inquiry ought always to be made; besides ascertaining what, and how much, the child has eaten. It would be well also to inspect the sucklings nurse, (if there be one) whether she drinks rum, or has any disease, or is dreadfully passionate, or in the bad habit of frightening the child.


There is always great alarm in such cases, and the physician has often to prescribe instantly, to satisfy the parents. The warm bath is innocent and useful, as also warm clysters of sweet oil. The stomach may be emptied by some warm water, and tickling the throat with a feather, if it contains any thing noxious; otherwise a dose of castor oil, with a drop of oil of amber, or fifteen drops of tincture of assaefetida, may be given. A blister must be put on the breast; and as soon as the oil operates, five drops of laudanum may be given, if the child is three years old or more; or two drops for an infant of one year. The enemata and bath must be often repeated. It may be well to look over the chapter on epilepsy.

Dr. Thomas recommends, for children, a little diluted potash to be frequently used; and as it may be tried with any other article, it will be well to mix in a little with the opiates, &c., three grains of salt of tartar, or as much of soda, will be a dose. In a suspicion of poison, this should always be used. When cheagres are suspected, not only the warm bath should be used, but when the patient is taken out, and well dried, the whole surface should be rubbed with warm sweet oil, to which a few drops of laudanum, or oil of pennyroyal, may be added.

When the brain appears to be affected; bleeding and the application of ice, in bladders, to the head for a few minutes, may be used, but not too long, nor often repeated; as the remedy will produce affections of the throat.

There can be very little expectation of the fit ceasing altogether, till the cause is removed. If the fit remains long (or at any time) some cold water may be sprinkled in the child's face.


There are some affections, called *inward fits*, attacking children, whilst asleep. There seems some agitation, but it is probably more of the night-mare kind: a great quantity of wind is discharged from the stomach. Some spiced toddy may be given, when put to bed, and the child often turned, and rubbed over the stomach.

 There is scarcely any case, but what a blister to the breast, as soon as the child has been bathed, will be useful, to prevent repetitions of fits.

CHOLERA INFANTUM, OR SUMMER COMPLAINT OF CHILDREN.

This disease holds a middle rank between cholera morbus and diarrhea, partaking of the nature of both. It is confined, in its perfect state, to our large cities; from Boston to Charleston. It seldom commences in the large way, in the middle states, before the middle of July, and then continues till the cool nights after the equinox. When the infantile system has been relaxed by the steady heat of the summer months; and especially when irritated by teething, it only requires those sultry heats, so common to July and August, through the whole twenty-four hours, to bring on cholera. And in proportion to this one circumstance, viz. heat continuing through the night, we may calculate the grade and quantity of the disorder, in any of the cities where it is found. In the unventilated, close, and crowded abodes; along narrow streets, courts, and lanes, where the poor mostly dwell; and where flies, mosquitoes, coarse diet, with uncleanness, augment the oppressions of climate; there cholera may be said to reign.

A warm sultry night, in August, is sure to finish the scene with one set, and to commence it with another. If ever death smiles, it is at such a scene; where he is rarely disappointed. And as human nature naturally seeks any relief from uncontrolled distress, he is often a welcome messenger to both child and parents.

 Children may be bled on the back of the wrist or hand.

SYMPTOMS.—Vomiting of undigested milk, &c., purging of the same, with abundance of hot, irritating bile and slime, created by the combined heat of fever and climate. Spasms and distensions from the irritation of such crudities; impatience from the nature of such inextricable distress; with consequent debility from the continuance of disease, and the want of rest; all of which are protracted through two or three weeks, or longer, in some cases.

Strong marks of inflammation exist, not only in the arterial system, but in the whole surface of the *primæ viæ* and large viscera, connected with the intestinal canal.

CURE.—This is extremely simple, if the means can be obtained in proper time. It consists merely in the early removal of the child to the country, where it can breathe a pure air by day, and at night enjoy that temperature so necessary to repose. This, with restraining its diet, will nearly be all that is requisite. The teeth, however, will require some attention; and cleanliness, by tepid bathing, will be needful to ensure a cure. But when a removal is impracticable, something may and ought to be done to relieve the child: as a favourable change in the weather, or in some cases great constitutional strength, or the lateness of the season, might conspire with our partial medical aid, to carry the child through. As a means of *prevention*, some decoction of Peruvian bark might be given, two or three times a day, from the beginning of summer, and the cold bath used daily. Children soon learn to take medicine, when given regularly. It has been found, by an experiment of this kind, that though the children will have fever, the bowels escape.

It will be necessary to learn them to drink rice water from a sucking bottle, that when the cholera attacks them, they may use this and not suck the whole of the mother's milk: a practice that alone would keep up any disease of the bowels. *One half of the usual diet, and that of a thinner kind*, is the most that even adults should use when the bowels are affected;

how much more such restraint is needful to children. The teeth should be lanced, again and again, without fear: for to render them insensible, by a cicatrix, would be gaining an advantage; especially as such places would give way sooner than the original covering.

Great cleanliness, personal as well as in bedding and rooms, are requisite. Some chloride of lime might be used with advantage. A good vigilant nurse, with a fan and musquetoë curtains, are here highly important. A matrass of some kind, is necessary: a cat's tail (typha) is one of the coolest. Flannels may be advantageous when the weather becomes cool, before the disease is cured.

The medical attention is chiefly requisite to *regulate* the disease. Thus when it commences with severe puking and purging, it will be necessary to administer a little laudanum, in some mint water, to arrest its violence, least the strength be exhausted. But this stage is often absent, or so small, that instead of restraining it with opiates, we may encourage it a moment with some camomile tea, till we are sure that all undigested nourishment has been thrown off. A discharge of all the acid, and offending matter, is absolutely necessary; so that we must aid it by castor oil, or some of the rhubarb julap, in sufficient doses to purge; or with the syrup of manna, with portions of magnesia.

The febrile symptoms must also be attended to: for this purpose, some give small doses of neutral salts. The soluble tartar is one of the nicest: five grains of this, with a little sugar, and a quarter of a grain of ipecacuana, or three drops of antimonial wine, may be used every two hours. Other physicians try to accomplish every purpose by small doses of calomel; a grain every two hours: but although this medicine may be used as a change with the above, the continual use of calomel will, especially if given soon, increase the inflammatory diathesis, and extend the length of the disease.


Blisters may be applied to the wrists, if the febrile symptoms continue, after a due use of the articles above prescribed. Mucillages are always used, both as food and as a sheathing to the irritations on the bowels. Arrow root starch, elm bark, and gum arabic, are the chief. Starch clysters are often useful, and towards the end of the disease, a drop or two of laudanum may be added to each clyster. Should the looseness continue after the febrile symptoms have abated, some astringents and opiates will be useful: small quantities of tincture of gum kino and prepared chalk, or two or three teaspoonsful of a weak decoction of logwood, may be used frequently. A little finely prepared chalk, with a drop of laudanum or less, may be used every three or four hours. A little alum whey is also a good astringent: a dessert spoonful, once in three hours, may be used before using the other astringents.

It is recommended as one of the noblest charities that could be offered to the sufferings of the human family, for every large city from Boston to Charleston, to have a place of refuge for such helpless little sufferers, who are literally stewed to death by the burning atmosphere of the summer months, and consequent fever, acting with an unremitting heat, both day and night. The plan would be to have about forty airy huts, with two rooms to each, and a kitchen shed to every four houses. These houses should be scattered over five acres of ground, shaded with umbrageous ornamental trees, at a distance from one to two miles from town, on an elevated ridge. The city of Baltimore abounds with such sites, from east to west. From the proximity of the city, the father of a family might do his daily work in the city, and walk out at night. These rooms should be under a strict regulation, by trustees. The physician in attendance, should give tickets of admission and discharge, so that a new set might come in: for in general, ten to fifteen days would be sufficient, in most cases, for a cure, if the disease was taken in time. And as many children would escape by attending their mother to the country,

there would at least be four hundred patients relieved annually; which number would absorb all the poor of any one city; among whom the great mass of mortality prevails. And in this relief we might safely say, that from fifty to one hundred were saved from a most horrible state of suffering and death. And let the question be put, where is the hospital, or any other institution, that saves that number of human beings? There would be necessary to such an establishment, a soup house, on a small scale, to give a dinner to the most indigent; also two good cows for the childrens' use; also a horse and cart, with a driver.

One of our noble spirited citizens of Baltimore, has given ten acres of ground, in the vicinity, for pleasure grounds and ornamental walks, with a view also to health. And it is to be hoped that some other will be found, whom God hath blessed with riches and a feeling heart; equally liberal for this great purpose. Methinks I see a marble column ready to spring from the quarry, to receive his imperishable name.

Forty huts might be built for \$5000 or \$6000; and an annual subscription of \$300 would then accomplish the whole business. Who among the single and childless will take tickets in this heavenly lottery, where all are prizes? Who, that has none, will become the parents of hundreds; nay, in the course of time, of thousands? and thus leave an everlasting memorial behind them. To save is next to create.

 There is scarcely a large city but what has its rich bachelors, its wealthy maidens, and its liberal citizens, who might almost contend for this honour.

LAX IN CHILDREN.

Although a variety of circumstances in the cause, management, and cure of diarrhea in children, differ from the disease of the same name in adults; yet it will be well to look into the chapter on that disease.

CAUSES.—In addition to the same causes that are

common to adults, may be added: unhealthiness of the mother's milk; meats given too largely to the suckling; and all indigestible articles that children eat so freely: such as green fruit, or too much ripe fruit. A disposition in the stomach to produce acid, is a frequent cause; which in fact is an indigestion from feebleness of the stomach. A lax is common when measles are declining. See chapter third, on eruptive diseases.

SYMPTOMS.—Thin discharges of various colours, made from four to twelve times a day; speedily followed by great emaciation. The absence of blood, slime, and straining, will designate it from flux. The state of the stomach, fever, and impatience in cholera, (and often the season) will mark out the lines between these two diseases.

MANAGEMENT.—The child must be kept warm and dry in cold weather, and always with thin flannels next to the skin; and be kept cool in summer, with the greatest attention to cleanliness. A most important regulation is to allow it but one half the diet that is usual in health. When a suckling, thin rice water may be given to pacify the appetite. If it is past sucking, arrow root, rice alone, or with a portion of milk, or thickened milk, chicken broth may be used as food, and a very weak drink of port wine and water, with nutmeg, allowed.

CURE.—Some of the chalk julep of the apothecarium, will be a good medicine to begin with; which will destroy the acid of indigestion; then small doses of one or two grains of rhubarb, to eight grains of prepared chalk, may be given through the day, every two hours, mixed in mint water. If these do not restrain the discharges in a few days sufficiently, ten drops of paregoric may be given with every other dose, (of the chalk and rhubarb) or one drop of laudanum. Should the disease still continue, more of the opiates, and also astringents, must be added: a few teaspoonsful of alum whey for four or five times through the day, or fifteen drops of tincture of kino, in a little water, or a dessert spoonful of weak tea of logwood, every three hours,

will be some of the best for this purpose. When there is any disturbance in the pulse, a small puke of ipecacuanha will greatly facilitate the cure; especially when there is much bile in the passages, and marks of inflammation and feverishness; or when cutting of teeth. The teeth must always be lanced when the gums are swelled. And if the child is kept from sleep by the irritation of the gums, a few drops of laudanum should be added to one of the powders of chalk and rhubarb, and given at night.

WORMS.

These are seldom the cause of any disease, compared with the frequency of accusation against them. Every writer seems to enumerate a certain set of symptoms of his own selection, which are often more appropriate to other diseases, or to a peculiarity of constitution. Occasional nausea, a cough without a cold, fits, emaciation, bloatedness, with the discharge of a worm or two, are pretty sure marks. But at times there are more severe symptoms: such as sudden prostration, an almost imperceptible pulse, blindness, deafness, with discharges of blood from the bowels; it would appear, in these last cases, that the worms were engaged in perforating the bowels.


In fevers, where the patient has taken no food for a week, worms are apt to come away; though they have not been the cause of either the beginning or continuance of the fever.

CURE.—In those cases where life seems almost suspended, it becomes necessary to administer wine and cordials, to keep the patient up; and when the pulse is restored, to administer a dose of calomel and jalap, to discharge the worms.

All the essential volatile oils are justly considered as anthelmintics, both from their flavour and physical action. Worms may also be poisoned by the use of certain articles, which the patient may take, in most cases, with impunity: such as spigelia, (the Maryland

pink root;) melia azederach, (pride of China;) powder of tin, heleboraster, &c. But these articles should never be used as a first course, nor at any time with very young children.

Worms may also be irritated away mechanically, by large doses of iron filings,* by pounded glass,† and by *Dolichos pruriens*, (cowitch.) But since the discovery of the high rank of the oil of *chenopodium anthelminticum*, (oil of wormseed;) as an offensive article to worms; they have met with little quarter in this part of the world, where it is plentifully and neatly distilled. Five drops of the pure oil dropped on a lump of sugar, and grated into a large spoonful of water, and given morning and evening, is sufficient for a child of five or six years of age; and ten drops is a sufficient dose for any age whatever. Spirits of turpentine has also been used in doses of from ten to forty drops, for the same ages: taken in milk. The syrup of cowitch is a very innocent and powerful vermifuge. After taking this, or the oil of wormseed, for three or four days; the patient should take a brisk purge of either calomel and aloes, calomel and jalap, or castor oil and calomel. Of all the other medicines before mentioned, (poisonous medicines) the Maryland pink root is probably the best: a quarter of an ounce of the whole plant is to be made into three small tea-cups full of tea: one of which is to be taken every two hours; and after the whole has been used, a purge of castor oil, or salts, must be given. But should a vertigo, or any other untoward symptom ensue whilst taking it, the tea must be laid aside, and a purge instantly given.

 No child, under seven years of age, should take pink root.


Tape worms are very difficult to dislodge. After taking pink root, or spirit of turpentine, for a week, the patient (if of a pretty good constitution) may take

* The iron filings, in large doses, have been mentioned by Dr. Rush.

† The pounded glass was used by the late Dr. Moore, of Baltimore, who probably got the prescription from Dr. Archer, sen., of Harford, Maryland.

a dose of tartar emetic, (say two or three grains in divided doses) and as soon as it begins to operate, turn it downwards, into a powerful purge, by drinking very salt broth, or salt and water. This plan has succeeded without the essential oils. The male fern root, once so famous, is not now in credit. Those who are too weakly to take the tartar, may take the essential oils for some time, and then a portion of pink root; purging it off with calomel and castor oil, or aloetic tinctures, often repeated.

Ascarides are small worms that infest the rectum, or last gut. If they cannot be discharged by means of the wormseed and purges, injections of weak tobacco tea will be necessary, followed by an enema of salt and water.

 Ten to fifteen drops of a saturated tincture, made with the inner bark of melia azederach, (or the pride of China,) may be given twice a day to a child of seven years old; or a teaspoonful of a strong decoction.

Ten to fifteen grains of powder of tin, may be used twice a day for one of the same age.

From a teaspoonful to a tablespoonful of syrup of cowhich, in the morning fasting, is a dose. After taking three or four doses, the worms begin to appear.

PROLAPSUS ANI, OR FALLING DOWN OF THE GUT.

CAUSES.—It is hard to say in some cases, with children, who are more especially subject to this complaint, what is the cause, more than some connatural laxity of the bowels or the muscles, connected in their action. In some instances it may be traced (in adults) to costiveness, or to great straining, as in dysentery: to piles, hard labours, and all weakening diseases.

In some instances the bowel may remain out a considerable time without damage, whilst in others it will inflame very soon. No time should be lost in replacing it. By putting the child on his knees, and his head down, it may soon be replaced with the fingers.

When pain follows this operation, (and it has to be frequently done,) the gut may be smeared with an opiate.* But when it has remained out some time, and become inflamed, it will be requisite to poultice it with a lead water poultice; and even to bleed from the parts with leeches, and from the arm. To prevent a return of the disease is the greatest difficulty: for it may come down at every passage from the bowels. Clysters of cold water, or a cold decoction of oak bark, and tonic remedies: such as steel, elixir of vitriol, and bark, with the general cold bath, are proper; with great attention to the bowels. Dr. Physic has recommended a diet of rye mush and sugar, which, from its apperient nature, keeps the bowels free and easy; and such diet will be proper during the existence of the disease. The cold water clysters will generally unload the bowels as well as tone them.

When it is inconvenient to use a general cold bath, a small watering pot of water may be poured over the back and hips, beginning with some that has been drawn all night, and so increasing the cold by degrees; taking care to wipe the child well, and dress it quickly.

In some very relaxed cases, bandages have been useful, and in all cases the child should have some assistance; so that when there is an appearance he may have an enema of water or oil instantly.

PERVERTED CIRCULATION, EVINCED BY A LIVID COLOUR IN WHITE CHILDREN.

The circulation of the blood, before birth, is not carried on through the lungs, but finds it way from one side of the heart to the other, by the foramen ovale; which hole in the heart begins to close up (as useless) after the blood circulates through the expanded lungs. When any spasmodic action of the lungs, or other part,

* Galls, in fine powder, one drachm; opium, ten grains; let them be made excessively fine, and added to two ounces of lard. A very little may be smeared on the parts, once or twice a day, for children of four to seven years of age.

denies the route by the lungs, it is then forced into the fœtal route by the above hole, so long as it is unclosed; and being thus deprived of the operation of oxygen on the surface of the lungs, it retains its venous hue, and gives this blue appearance, instead of a fine red to the child's face. What appearances children of colour (negroes) have, is not known; they do not seem to have been noticed in this disorder. The foramen ovale will sometimes remain open, and transmit blood, till the tenth or twelfth year, and then the child will go off suddenly, by fainting, or a fit of some kind. The doctrine, therefore, of some medical gentlemen, as to the immediate destruction produced by venous blood entering the brain, is fallacious.

We every now and then meet discoloured white children, as above described. Dr. Hossack has given two cases, where it would appear such a state was wont to form so suddenly as to produce immediate death. Though the question might be asked, whether the disease he describes is not another? though attended with a livid colour; and no doubt from the blood finding the passage through the foramen ovale. Perhaps in those cases where death does not immediately ensue, the spasms in the respiratory organs are not the cause, but a relaxation and want of formative power in the foramen, by which means the route is gained by degrees; and the change imperceptible for some time. In two cases related by Dr. Hossack, the children appeared to become breathless and livid, and lose their circulation; when from pain, or some alarming sensation, they screamed out, and it would seem thus to open the lungs, and admit the blood again into its proper route. These fits soon return again, and the child quickly sinks under them, unless relieved. The only known relief has been suggested and prescribed by Dr. Hossack. He takes four ounces of Peruvian bark, and boils it in two gallons of water, adding one pint of spirit, and occasionally a little spirit of sal ammoniac, to make it more stimulating; perhaps an ounce in all. The child is dipped in this, when of proper warmth,

up to the chin. He used it a little warmer than the skin, and continued it till the symptoms went off, and then wiped the child dry, and put it in flannels. If the symptoms recurred, he bathed it again; and always with relief, and lessening of the disorder till it was cured. These were infants of a few days, or a few weeks old. Although every minutiae of the doctor's remedy should be attended to; it might be prudent to use warm water, even alone, at the offset, if the other articles were not at hand, or quite ready. The effect of a warm bath is so general in altering the circulation in children, that it is often a dangerous thing when the child has been much debilitated by disease, medicine, or bleeding: producing fatal syncope, and when it suits, is, of course, equally powerful and salutary.

ACCIDENTAL DISEASES.

CHAPTER XIII.

POISONING, FROM TAKING ACRIMONIOUS VEGETABLES AND MINERALS.

THE word poison, has been applied to the action of such articles as speedily overcome the vital energies of the system; whether by a direct action on the primæ viæ, as in those which inflame and corrode the parts, or by their peculiar physical action reaching the more sentient organs of the system: such as the brain, nerves, heart, or lungs. It has also been applied more vaguely to those articles which interfere with the elements of life: as the gasses, when inhaled; and finally to articles that act in an extraordinary manner, even when applied to the surface.

The difficulty of a good definition is great, because most of those physical articles, in small doses, are medicines, and some are salutary (as carbonic acid gas) when applied to the stomach.

The symptoms of poisonous articles, are mostly as follows: dilated pupils, blindness, oppression, vertigo, nausea, vomiting and griping, with great pains; sense of burning in the fauces and stomach, sense of bursting, drought, strangury, discharges of blood from the bowels and other parts; sudden sinking and failure of all the vital functions: hiccup, cold extremities, cold sweats, spasms of the face, legs, and abdomen; swelling of the face, tongue, and whole body; tremours, convulsions, coma, and mania; sometimes miliary, and purple eruptions, &c.

In external poisoning, there are eruptions of an erysipelatous appearance. Many of the aforementioned symptoms attend in any case of poisoning. The pulse in all bad cases is affected: mostly quick and small, or interrupted.

MANAGEMENT.—When it is found that a patient has swallowed some poison, especially if not known, the first thing to be attempted, is to puke it off, provided it is a very recent accident. If the patient can swallow, he should drink freely of warm water, with thirty grains of ipecacuana in it, and in a few minutes begin, with his finger, to excite the stomach to throw it off. When persons are too insensible for this, a feather should be introduced into his throat and moved about. Or if a stomach pump can be obtained, or a good tight syringe, with an elastic tube, water may be thrown into the stomach, and then drawn out again, for several times. Every attempt must be made to ascertain from what is thrown up, what the poisonous article may be. If there is any likelihood of its being a mineral poison, it will be well to give, or inject into the stomach, a pint of water, in which there are two table spoonsful of common ley, or a drachm of salt of tartar; repeating it after drawing out the first injection. A quantity of the whites of eggs may then be given, or injected.

The following list of articles, liable to do mischief, are kept about most dwellings, or found in their gardens: corrosive sublimate mercury, arsenic, cobalt, tartar emetic, verdigris; red, white, and sugar of lead; opium, mushrooms, night shade, (solanum) wild carrot, goosefoot, James-town weed, poke root, palma christi seed; on each of which we shall insert a short section.

Corrosive sublimate mercury, is one of the most common poisons that we have to prescribe for. Spirituous solutions of it are used for to destroy bed bugs. When the bottles stand any time, there is a crystallization forms at bottom, not very easily washed out with water; so that if this double poison is not drank by some drinker, through mistake, he has another

chance at the beer cellar, where those bottles, when empty, find their way, and then poison the cider, or beer. The glass houses should facture bottles expressly for the purpose, with a peculiar form, and with letters thus: POISON. And no solutions allowed to be made with spirit, for family purposes.* The mayors of cities should attend to these things! When corrosive sublimate is taken, the patient feels a burning from the throat to the stomach, with violent pain and vomiting, frequently of a bloody appearance. The quantity, and length of time it has been taken, will vary the symptoms; but he will, if it is not discharged, have many of the symptoms detailed before in the general statement of poisonous symptoms. The potash, or common ley in water, as before mentioned, will be one of the best antidotes. After using some pints of it, and drawing it, or puking it off, whites of eggs may be given: and finally a large draught of prepared chalk, or whitening and water; say an ounce of whitening.

If some of what is puked up, is mixed with a little lime water, made even by rubbing some of the plaster of the house, in a mortar for a minute, it will change the corrosive sublimate to an orange colour. If any other test is wanted, the nitrate of tin will make a dark brown precipitate. If after the patient has thrown off much of the poison, it is found that an inflammation of the stomach has been produced, bleeding and leeching over the stomach, and oily purges will be necessary. By the above tests we can ascertain not only the article, but also when all the poison is thrown off; and then (if much pain follows and a fever) ascertain that the stomach is inflamed.

Arsenic.—Next to the corrosive sublimate, this is the most usual article met with in poisoning. When

* A watery solution, viz. Re. corrosive sublimate, two drachms; common salt, half an ounce; to one bottle of water add a few filings of copper. No drinker would touch a green nauseous poison such as this, for bed bugs, made with water.

℞- Fowler's solution of arsenic might be precipitated with lime water, (after throwing off as much as possible) forming an inert arseinate.

taken largely, it produces burning, thirst, sense of bursting, straining to vomit, sinking and death; sometimes in thirty minutes. But when in less doses, there will be also some of *the symptoms in general* that are before noticed. This article, unfortunately, cannot be readily or fully decomposed in the stomach, like the former: puking and pumping the stomach are the main remedies: after which, the stomach may be well covered with some inert article that will envelope some of the particles, and also prevent any acids from acting on the arsenic: such as an ounce or two of prepared chalk, or whiting, in a pint of water, and then puked off: after which, the whites of eggs may be taken freely. When there is no chance of getting off more from the stomach, and there is still uneasiness, purges of castor oil, with portions of sweet oil, may be used.

The appearance of the stomach, on dissection, is often spotted; the stomach being made red, and the glands on its surface darkish. If inflammation of the stomach is produced after the arsenic is evacuated, it is to be treated as before directed, for inflammation after corrosive sublimate.

Arsenic, when thrown on a red hot iron, or on a strong coal of fire, is volatilized, and smells like garlic. But in a case of *life and death*, (*i. e.* before a jury) the mass should be inclosed in a tube, with equal parts of charcoal and potash, and then calcined, so that the arsenic may be sublimed; which sticking to the sides of the glass, will be seen in a metallic coating. A solution of lunar caustic, in diluted volatile alkali, will make a yellow precipitate, with arsenic, for a temporary test.*

Cobalt, commonly called fly stone, is an ore from which white arsenic is obtained; and of course is nearly the same thing. It is used to kill flies, as also in glass factories. The remedies are the same as for arsenic.

Tartar emetic.—This is sometimes taken by mis-

* Caustic, one drachm; water, one drachm; pour off, when dissolved, and add volatile ammonia, till the silver is re-dissolved.

take, in a pretty large quantity. It produces severe vomiting and purging, burning at the stomach, violent spasms of the abdomen and calves of the legs; and afterwards leaves a burning about the throat, and a salivation in some cases: even in doses of seven to fifteen grains, it will produce this effect. It is said that it has much less effect on the stomach of old sots.

The stomach must be well rinsed with warm water; after which some portion of warm water, with a drachm of carbonate of potash in it, may be given. The decoction of yellow bark is said to be a specific.

The limbs should be rubbed with warm spirit, as also the abdomen, and then a sinapism laid on. Opiates may be freely used to allay the spasms. Salt broth will throw the action on the bowels.

The calcining the tartar with charcoal and potash, as for arsenic, is the surest test. The hydrosulphurets precipitate it from a solution, of a brown orange.

Verdigris.—All the preparations of copper, except the sulphate, (blue vitriol) may be considered poisonous. Neither vinegar, nor salt, nor spices, nor syrups, nor fats, nor fruits, should be left to cool in copper vessels; as they will form poisons. They will then produce a bad taste in the mouth, dry tongue, sense of strangulation, pains in the stomach and bowels, anxiety, &c. After giving it a chance to come off by the stomach, (if recently taken) a purge of salts may be used. Some diluted vitriolic acid may then be administered, to the amount of a drachm or two of elixir of vitriol, in a pint or less of water. Sugar and water may be used at the offset, to rinse the stomach, especially when the sugar has not been the article that has acted on the copper. Repeated doses of oil will be useful, as also plenty of mucilaginous drinks. The whites of eggs should be freely used, when the above are ineffectual; and perhaps it may be as well to give some of them immediately after rinsing the stomach.

Tin.—This is said to be dissolved by some of the esculent sauces and gravies in use, and is then a poison. The peculiar symptoms are not well ascertained,

but are some of those in the general list; perhaps more like arsenic than any of the others. It would be well not to let soups, or any spiced broths, or other article, remain in tins all night, (to be warmed up next day.) After a purge, milk must be used freely. It is said to be a perfect antidote.

Lead.—See painters' cholic. But if taken in large quantity, by mistake, it must be purged off with salts, or puked off, if possible.

Opium.—This article, in large doses, produces vomiting, and then stupor; in less doses, it produces convulsions. It becomes more dangerous, where there is no speedy assistance in the smaller doses, by its laying longer on the stomach. It also has a strong tendency to produce apoplexy; and when this is perceived, or the patient is of that habit, some blood should be taken. Every method to clear out the opiate should be used: by tickling the throat with a feather, and by giving strong emetics, or by the pump, if it be laudanum. If the person is very insensible, so as to prevent the administration of medicine, some water as hot as we can soak our feet in, say 110 or 112 of the thermometer, may be thrown on him; and whilst revived, he may swallow the puke, or other articles. When pukers cannot be taken in the usual way, an injection of two drachms of ipecacuana, well drawn in a pint of boiling water, may be injected warm into the bowels; which will puke freely in some cases. Stirring the patient about (and if a boy) taking him on a horse, and trotting about in the open air, is useful, after all chance of evacuation is over. Strong acids should be given very frequently, every quarter of an hour: such as lime juice, or vinegar. Some small doses of ipecacuana, say three to five grains, may be given with drinks of cream of tartar, every hour: by forming a kind of Dover's powders, they open the pores, produce sweat, and thus relieve the brain.* They are not to be given till the chief danger is over.

* Persons may take twice and thrice the usual quantity of opium, when united with an emetic.

When the person seems to yield to apoplectic symptoms, and has been bled freely, cold water should be applied to the head, and sinapisms to the extremities.

Mushrooms.—It is no wonder that people are often poisoned by mushrooms, when children are the gatherers, and the cooks seldom the eaters. Moreover, because there are three distinct sources of mischief: first, over eating. They are very heavy food; that is, such as will not puke off when too much is taken, but paralyze the stomach like an opiate. Those who suffer, are generally epicures: the mushrooms are highly seasoned, and often eaten at night. A peck of the fresh vegetables will make two quarts of stew, which will be eaten by *one* man; who, perhaps, has already diseases of the heart, or brain, underweigh. No wonder he sinks before morning, when so loaded! Secondly, the esculent mushroom will become diseased in shady places and very rich soils, and attain an acrimony or a putrescent disposition: so that an ordinary mess will poison. Thirdly, children that gather them may often take up other species by carelessness or mistake. The club mushroom may pass very well for a stem of the esculent. No persons are ever injured by the pickles, when made of the proper kind; because they are then used only in moderate quantity: few persons using more than what is made from a pint of the fresh plants. One quart of the fresh mushrooms (making less than a pint when dressed) is the largest quantity that any hearty man should attempt to use for his *dinner*. Healthy mushrooms grow in sunny flats, and in a thin soil: they have a thick white hat, with pink coloured parallel gills. The hat is slow in expanding. They should be eaten before this is fully expanded and turned in colour. The skin of the hat is always thin, with small ruptures, and disposed to peeling. The stipe, or stem, is short and *perfectly* strait, of equal thickness. All mushrooms should have the hat and stem together, when chosen.


No mushrooms that have a mucilaginous and dark

appearance should be touched; nor those with a thin flat hat.

Vertigo, dyspnœa, oppression, and soporous symptoms, attend the over eating of good mushrooms; and when poisonous mushrooms are used, some of the symptoms mentioned in the general list of symptoms: differing, perhaps, according to different species and the quantity eaten.

Vomiting, by tickling the throat with a feather, and by injecting an infusion of ipecacuana into the bowels, as directed for opium, are first to be tried; and then powerful purges of jalap, with enemata of soap suds, with a few grains of gambouge, are to be used. Acids may also be tried, as in the case of opium: with bleeding, and cooling the head, when the patient is soporous. Perhaps, as the mushroom is the natural food of hogs, and they eat all sorts with impunity, some of their gastric juice, forced into the stomach by a long elastic pipe and syringe, might digest the mass, and cause it to become harmless.

Conium macculatum, vulgarly called cicuta, and hemlock.—This is a stout umbeliferous plant, two or three feet high, spreading its large, deep green, shining foliage, over two feet or more, on each side, quite down to the ground. The leaves are compound and winged. Each proper foliole, or leaflet, has little or no stalk. They are about three inches long, and are lance-shaped and notched. But the chief botanical character is the seed. Two growing together become like coffee: that is, flat on one side and rounded on the other: the round back has several rough ridges. The spots from which it takes the name of *macculatum*, are on the main stem; small, brownish, and thick set. There can be no fear of this plant being mistaken for any garden plant, so that design or simple mistake must be the source of poisoning. It grows most abundantly on the hill sides of the wet rich ravine, near Easton, Maryland; and

 The cicuta is a virulent plant also. The *cicuta bulbifera* grows in the marshes of Canada. There are no likenesses of habit between the two plants.

although up to the gardens in some parts of the town, the oldest physician could not recollect of any accident from it. Vertigo, dimness, palsy of the tongue and extremities, are said to be the chief symptoms.

The vomiting of it off, by the aforementioned means, and then using oily purges, are the first plan; sinapisms, liniments, and blisters to the paralyzed parts, are then to be applied.

Night shade, (*solanum nigrum*.)—This plant is easily known by its blackish green, polished and round berries, as large as a green pea. The leaves are lanced, dark coloured, and generally perforated by worms. The aspect is something of the Irish potatoe, to which family it belongs. It first purges by inflaming the bowels; spasms will then pass from place to place, over the whole system, imitating croup, cramp colic, &c. All this the author has seen in a child. Evacuants are the only means, and then sweet oil, by injection. If not thrown off in time, the morbid symptoms will continue for three or four days, and then destroy the patient.

Wild carrot.—This is not the *daucus pusillus* of the southern states, but our own garden carrot, growing in damp fields, where it gains a great top, though little root, and much acrimony. It produces incessant spasms of the face, in children, and then stupor and death. Adults drink a tea of it with impunity, in cases of gravel, and often with much relief.

Evacuants can scarcely be of use when a decoction has been drank, unless it be in a half hour, or less, after taking it. Oils may be given by injections into the stomach, and gentle diuretics, such as ærated waters. Blisters may be used to draw the irritations to the surface. But we know of no specific.

Chenopodium muriale, (goose foot).—This plant grows about the ruinous heaps of old dwellings. It is about eighteen inches to two feet high; has the aspect of lamb's quarter; and the fruit like this, or the Jerusalem oak; the smell is rancid. The leaves are egg-shaped, glossy toothed and acute. It produced (by

eating the bunches of green flowers,) in two boys, at Baltimore, purging, griping, and incessant convulsions of the whole frame for many hours. Large quantities of oil were used by the mouth and anus, when it was too late to puke; and with success.

Datura stramonium, (James-town weed.) The small unripe seeds, given to a child in Baltimore, (to destroy it) produced great griping, slimy stools, with a little blood, and the seed came with it. They are engraved and polished, and may be easily distinguished by these marks. In some adult subjects, that made too free with a tincture, it produced mania, rather of an harmless cast: the drinker supposing himself a cat, in pursuit of mice; and from other accounts, this ridiculous mania is the common turn. But like oxyde of azote, it may at times take a mischievous turn. Evacuation, low diet, and blistering, may be used, taking good care of the patient, and keeping him to a vegetable and watery diet.

Phytolacca decandria, (poke root.) Violent gripings, slimy purging, and disorders of the primæ viæ, attend, when a root as big as the finger has been used. But the author saw a case of delirium from the application of a poultice, made of a very large root, which was merely applied to the neck, to discuss a tumour. Evacuations are the only sure means, and then oils and mucillages: no specific being known.

Palma christi seed.—Only ten or twelve of these have acted on the bowels of grown people, so as to lay them up for days. Sweet oil is the best remedy. They might be fatal to children, as they are to fowls.

External poisoning is done by poison ash and poison oak* plants, well known in the country. Eruptions, with thickening of the skin, are the consequence, with violent itching. The eruptions have a dry scaly disposition. Applying poultices of vinegar and bran, or of soap and bran, till they are white, and then a little

* *Rhus vernix*. *Rhus Radicans* and *Rhus Fœficadendrum*, of Marshall, are our poisonous plants. The first, a little tree; the second, a vine; and the third, a shrub.

mercurial ointment, or weak red precipitate salve, cures them speedily.

BITE OF A VENOMOUS SNAKE.

We have but two species of snakes, in this part of the world, that inflict a wound, and transmit a poison through a hollow groove in the tooth, that communicates with a sack in the jaw, somewhat like a gum-boil. The rattle snake and the copper head are of this description. This latter snake is probably the one called by Dr. Mead a viper. But the snake we name a viper has not those fangs that fall back into the mouth, and are again elevated at will. A multitude of falsities have been published on Indian and negro authority, about prevention and cures; whilst too little has been published by physicians, as to either the symptoms produced by the poison, or on a rational method of arresting its destructive force.

SYMPTOMS (from fact.) A woman was lately bitten on the foot by a copper head, in this neighbourhood, whilst walking in her garden. Such was the rapidity of the poison, over the system, that she fell by the time she reached the door of her dwelling. Pains instantly ensued in almost every part of the body; but more particularly in the abdomen. The tongue swelled so as to prevent speech. As no medical aid was to be obtained for some time, she was indebted to her constitution, in a great measure, for surviving the injury. The pains and swelling of the tongue abated slowly, and in three days she was relieved.

The case of Mr. Bobbit, at Person Court-house, North Carolina, in November last, was as follows: Mr. Bobbit was bitten on the finger by a caged rattle snake. In three minutes his eyes became red, his lips swollen and quivering. In about ten minutes more,

§ There are a few instances of spiders having inflicted a mortal wound on some delicate individuals; but such things are so rare, and the species of spider not being certainly known, nothing can be said that will apply to them in particular; and they may be treated according to the plan for the venomous bite of a snake.

all his muscles were in a quivering convulsive action; at this moment vomiting commenced, and lasted for an hour. A collapsed state of the pulse ensued, (in about half an hour from the time of the bite.) He was in great agony; but was sensible till the fifth hour; and died at the sixth hour from the time he was bitten.

Bites of snakes have sometimes produced only local symptoms: such as inflammations of the part bitten. Dr. Jamieson, of Baltimore, says that he has seen such, and that they resemble serophulous inflammation. Whether the venomous snakes had exhausted their sack of poison in battle, or by other means; or whether some snakes of a different species were the aggressors, is doubtful: for the snake often evades a hasty search.

CURE.—When a person is bitten by one of the above named snakes, he may take it for granted that he is seriously poisoned; and if the part can (without much damage) be instantly cut out, or off, it should be done. A ligature, sufficient to stop the circulation in the limb, above the bite, should be instantly made by any string at hand. The wound should then be bathed in water, or in ley; and this will be better done with a syringe, forcing in the water repeatedly. The wound should then be slit open, in various directions, from without to the centre, wiping the knife and wound after every incision. But if the person can command a piece of vegetable caustic, or of silver caustic, it should be inserted; the former will eat out the flesh, and the latter, though not so corrosive, will destroy the power of the poison; and on this account may be used in a liquid state, (subsequent to the common caustic,) pounding it up with some water. If the patient has sufficient fortitude, a hot iron, which is always to be had, should be used, without waiting for other means, to burn out the wound. It might not be amiss to give a grain of lunar caustic, dissolved in water, internally, every half hour, as Fontana asserts its power (when in contact) of destroying the virus of the rattle snake. If, however, the poison, notwithstanding the above operations,

has in some portion got into the circulation, and produced the symptoms described; the physician should anticipate the collapsed state of the pulse, and apply sinapisms on the spine and legs largely, and administer brandy, volatile alkali, or ether, freely. Ten grains of calomel, with six of camphor, may also be given every half hour, and warmth applied by every means to the body. Electricity may also be used, and a bath of a very high temperature should also be applied momentarily: for the poison will not continue its influence longer than other poisonous articles; and, therefore, there is hope as long as any stimulant can raise a single pulsation. Warm oil, rubbed all over the surface, has had its advocates; and may be innocently used in minor cases. The artificial wound, made by the incisions, should be suppured; and the patient kept at rest when on the recovery.

DEATH FROM DRINKING COLD WATER.

It seems strange that this affection should remain unnoticed, almost entirely, till the day of Dr. Rush; and that to this date little more seems to have been done, than to give a teaspoonful of laudanum, with as much ether, and then consign the patient to his fate.

SYMPTOMS.—The patient, soon after taking a full drink of water from the pump, when his body is very hot and sweating, begins to feel a dizziness and breathlessness, and then soon falls to the earth speechless. His face becomes of a bluish hue, and his surface cold and wet, and he appears as if there was nearly a total interruption in the diaphragm and lungs, both in action and circulation. The pulse becomes merely slower than natural; but soon begins to sink away, and he dies in about thirty minutes, apparently in the greatest agony: not being able to utter a word. At other times the patient has recovered without medical relief, and has been beset with the most violent rheumatic pains; only yielding to repeated bleeding. It is a fact, that this disease never assails a patient but when the thermo-

meter has reached nearly the highest point, and when it is ranging between 80 or 90 degrees of Fahrenheit, in the shade. This circumstance seems to point out a rational theory. It is an established fact, that the system generates heat for its use, and distributes it in proportion to the atmospheric deficiency; and of course, when the thermometer approaches the freezing point, not only enough for the system is generated, but an immense surplus is given out to the atmosphere, and all cooler bodies in contact. This seems owing not only to the vigour of the system, but to the condensed state of the atmosphere. But when the atmosphere has arrived to nearly the temperature of the blood, it would appear that little or no surplus heat is generated. This is proved by the experiments of Fordyce and others, who found, on going into a room heated greatly beyond blood heat, that the temperature of these persons was not raised like dead matter, but a process was going on of a chemical nature on their surface: generating cold enough, by evaporation, to keep the body at the proper temperature of health. The ratio, therefore, of generating surplus heat, is in inverse proportion to the external temperature: ranging from the lowest degree *consistent with good health*, up to blood heat; and *ceasing* at this point. The use of surplus heat is very great; by it all local deficiencies are quickly supplied; which are very frequent from our partial exposure, partial sweating, irregular circulation, taking in cold ingesta, being exposed to the different temperature of water, both by rain or accidental immersion. If, therefore, an imprudent person takes in a large quantity of cold water, when the thermometer is so high, and the system incapable of making and rapidly distributing surplus heat; the abstraction of heat is not supplied in due time to the stomach. And if the body is much heated, and relaxed by exercise, the very free perspiration conducting off the natural heat, will continue to exercise that chemical process; so that the cold taken in, instead of shutting up the pores of the surface, and thus stopping the effusion of heat, as in

health, will paralyze the stomach, by reducing it to a temperature incompatible with the composition of the blood, and a free circulation. Spasms, therefore, of the stomach and neighbouring parts, will instantly ensue: of the diaphragm and lungs, in particular. A very trifling experiment will elucidate the effect on the system in the two different states, viz. during a low and high temperature, and an active or inactive circulation of heat. Let a basin of boiling water (containing a pint) be put on a brisk fire, and while on, pour in a pint of cold water at 40 degrees: the consequence is, the temperature instantly falls to the medium, viz. 126 degrees, but in the next moment rises to 130, and then to 140, and so on rapidly to the boiling point again, of 212 degrees. But let the same thing be done to a pint of boiling water *not on a fire*, and the division is made of 126, and so remains without rising. Now these experiments show pretty nearly what is done in the human body, in a low and in a high temperature of the atmosphere. They also show very plainly what the system requires under such circumstances: not only something to stimulate, far above natural, the stomach physically, but *actual heat*, to be embodied and forced in, by injecting it with machinery.

CURE.—It is therefore recommended to administer a teaspoonful of laudanum, and another of ether, mixed in a little brandy, immediately; also to inject into the bowels a teaspoonful of ether, or spirits of hartshorn, diluted with half a pint of water and spirit. As soon as some water sufficiently warm can be obtained, inject a gallon in the stomach and bowels with a syringe, and repeat it in fifteen minutes. It should be as hot as we can drink tea, or hotter, but not so warm as to do injury by scalding. The surface of the patient's body should be wiped perfectly dry with sponges, and kept so; nor would it be amiss to apply warm, dry astringent powders to it, such as whiting; so that no cooling process should go on there. If the above applications do not restore heat, the apparatus

invented by Dr. Jennings, would be advisable. It consists of a bent tube; a segment cut out of the wide end makes a little fire place, and in this is placed a cup of rum, or spirits of wine, and fire is put to it; so that the blaze of the alcohol heats the air, and it ascends rapidly, and greatly heated. The small end which conducts it into the bed, must be wrapped with cloths as it gets very hot, and the hand of the operator will direct it, so that great heat can be given to a bed, or the body, in one-half of the time it can be commanded in any other way. Where this is not to be had, a warming pan, warm bricks, and bladders filled with warm water, must be used. The lungs might also be stimulated in the following way: take two or three small pieces of sponge; dip them in ether, and put them inside the valve of a bellows, and used as described for drowning. (See the article drowning.) Blow very slowly and gently; keeping the bellows horizontal, or having a thread to each sponge, hanging out of the valve, to keep it from passing into the tube of the bellows. If the patient recovers, he should lay by a day or two; and if rheumatic pains follow, be repeatedly bled. Dr. Rush advised the corporation of Philadelphia to paste up notices and warnings on the pumps, in sultry weather: directing persons to cool their faces and hands before drinking; by the astringent effect of which, the heat would not escape so rapidly from the body. This notice might be improved two ways: first, by having a plate representing a widow and children following their deceased husband and father, borne from a pump. Secondly, by tolling a bell for persons that die at the pumps in the hot season. This is the more requisite, because many cannot read the directions.

SUSPENSION OF LIFE FROM DROWNING, AND OTHER CAUSES.

DROWNING.

A vast number of lives have been lost by the rash

usage of persons that have been submersed, or otherwise suffocated. The small spark of life is often put out, instead of being rekindled, by pulling the body about, rolling it on a barrel, or exposing it naked to a current of cool air. The erroneous idea that the lungs were full of water, has led to this dreadful error. Dr. Goodwin has shown, by decisive experiments, such as drowning animals in black dyes, that little or no water enters the lungs; and the author knows it from his own sad personal experience.— However, a considerable quantity of water enters the stomach; which will clear itself. The cause of death is merely the exclusion of atmospheric air, by which defect the principle of heat is withheld from the fluids and solids; and the quicker this deficiency of oxydation and heat is restored, the better. But from the paralyzed state of the muscles of respiration, these organs need some artificial aid. Let the body be placed on a cart, or on an old door, the head and shoulders a little elevated, and carried, without losing a moment of time, to a warm bed. Rub it dry, and place heated bricks, bladders of warm water, and hot blankets to it. The curved tin tube, invented by Dr. S. K. Jennings, for forcing up heated air, is well calculated to give heat to the body expeditiously. It requires a careful hand. If this is not to be had, a warming pan may be passed over the spine, which of course is to be covered with flannel, so as not to burn the patient. Should there be no warming pan, more hot bricks and bladders of warm water may be placed where they can, viz. between the thighs, under the armpits, and the bladders on the belly. Warm water and a little brandy may be forced into the stomach and bowels, and the whole body immersed in a dry bath, of the hottest temperature that can be borne in health.* The mouth and nostrils must be cleaned out, and the pipe of a bellows introduced into one of the nostrils;

* Take a bushel of bran and pour one gallon of hot water on it, and mix it well; as soon as it can be borne, spread it on a sheet, and lay the patient on it.

the other nostril and the mouth are to be secured with the hand of an assistant, whilst the windpipe is to be drawn downwards, and pushed gently backward by the assistance of another person, with his hand resting on what we call Adam's core; so that the air may not pass into the stomach. The assistant who has the bellows, must now blow gently till he fills the lungs, and then taking off the hands from the throat, the breast must be pressed to discharge the air. In the space of half a minute, the same operation must be repeated, and continued till signs of life appear. There are proper apparatus for this business. Humane societies should be formed in all places where such accidents often happen, with a full set of apparatus: such as bellows, blankets, stoves, warming pan, and spirit of wine for heating; tinder boxes, Jennings' bath, cubes of iron for heating the warming pan; hooks, drags, nets, &c., with some suitable stimulating medicines: as also some cotton, or tow. By these latter, and the spirit of wine, and fagots, and a match box, a fire may be had in one minute, to heat water, bricks, blankets, iron cubes, &c. Two or three hours should not be considered as too long to persevere in the aforementioned means.

PERSONS APPARENTLY DEAD FROM COLD.


Rub the body over with soft snow, or very cold water, relaxing by degrees the cold till the natural temperature is restored; but be slow in doing this; as nothing could be more injurious than a quick restoration of even natural blood heat.

The body may be laid on a bed of cold meal, taken from a cold room, and spread on a sheet. This may also be used to rub with; keeping a parcel of it exposed out of doors for that use.

PERSONS APPARENTLY DEAD FROM NOXIOUS VAPOURS.

It is recommended to throw some tankards of cold

water on the face and breast; especially in summer time. But if the body be cold, and in winter, heat will be more necessary: it may be applied by injecting warm water into the stomach and bowels, and by the bath of bran. But the main object will be to extract the vapours, and supply fresh air to the lungs by the bellows. If no proper air pump, or surgeon's bellows, be at hand, a common fire bellows may be soon rigged up, to answer pretty well, as follows: bore a small gimblet firmly into the valve of the bellows, or if no gimblet is at hand, drive a tack into the valve, and tie a short string to the tack. Either of the means are for the purpose of securing the valve. Having fixed the bellows as directed in the section for drowned persons, excepting one variation, which is this; the bellows must be shut close when about to be introduced; and the first operation is to open the bellows; the operator holding the valve, in the mean time, tight by the string or gimblet; so that instead of the bellows charging itself from the atmosphere through the valve, it will charge itself with air from the lungs, and thus extract the foul air that has suffocated the patient. The operator now keeping his bellows in the nostril, shuts it down, and at the same moment pushes up the valve with his finger; so that the foul air may go off by the valve, instead of being forced back into the lungs. This is the first operation; the next is to force fresh air into the lungs. To do which, he merely blows the bellows, as if into the fire, not touching the valve; this finishes the second operation. The first is then to be repeated as before, so as to draw back the fresh air that was injected, and the remains of the foul air. After six or eight turns in this way, the bellows may be used as for drowning, *i. e.* forcing in fresh air, and pressing it out with the hand on the breast.

 It is said that persons apparently lifeless, down a well, (with mephitic air) have been revived so as to assist themselves, merely by dashing tubs of water down the well. Some lime thrown down, in a fine state, (avoiding the head of the sufferer) would be

then sufficient to keep him alive; as it would absorb the gas. But this would be most successful in a dry well. A better plan (that would answer even when there was some water) would be to sprinkle a peck of fine lime on both sides of a blanket, and let it down by two cords, and wave it about in the well. In a few minutes a person could then descend in safety, and secure the body for raising it up.

IN CASES OF APPARENT DEATH FROM DRINKING RUM.

The head is to be elevated, the neck cloth loosened, and cold applied to the head by ice, or cold water. Cupping and leeching are necessary; and the feet and legs are to be kept hot with bricks or water. Some warm water, acidulated with any acid, may be forced into the stomach, by a prepared syringe; and, if possible, the rum extracted by a stomach pump.

IN APPARENT DEATH FROM LIGHTNING.


Warmth, as in the above methods, may be applied, and an electric shock, (though not severe) passed through the chest, but in no case through the head. Experiments have shown, that an electric shock passing through the head of a pigeon would deprive it of motion, whilst another shock immediately afterwards passed through the heart would restore it to action. There is a probability that the shock from lightning affects the brain and nerves primarily; so that a moderate shock or two of electricity through the heart might be as restorative as to the bird. If the patient be of a full habit, leeching, and cupping, and cold applications* may be applied to the head; whilst the feet should be kept warm, especially if they have lost their heat; nor could there be any harm done by inflating the lungs with fresh air, by the bellows, as in drowning.

If any of the above accidents should happen in places

* In cases of more moderate injury, very cold water, applied to the surface, has revived the patient.

where no bellows can be procured, a syringe, or bladder and pipe may be used: this latter is to be inflated by repeated breaths from the mouth of the assistant, rather than from his lungs.

In all cases of suspended animation, a little wine and water should be given, by a spoonful at a time, to the patient, as soon as he can swallow; (provided he has none injected) and rest, with the lightest diet, should be prescribed, and persisted in some time. Cases of perpetual dyspnœa, (or difficult breathing) have been brought on by submersion.

 A considerable portion of management of the above cases have been taken from the transactions of the London Humane Society.

SURGICAL DISEASES.

CHAPTER XIV.

WOUNDS.

INCISED wounds (*i. e.* cut with a sharp instrument) will, in general, require nothing more than to apply the edges neatly and closely together, and then confine them so by straps of adhesive plaster. These are to be about one inch wide, and laid across the cut, passing some inches on each side of the wound; or if on the arm, it may be passed quite round the arm and cross over the cut: this latter is best when the bleeding is troublesome. Some lint may be laid on first, (or if not, much blood issues,) it may be laid on the interstices of the plasters; as the main use is to absorb the discharges. A roller of flannel must be passed over all. But should the bleeding continue too free, or be expected so to do; it will be well to apply to the bottom of the wound some of the coagulating mixture, (see the apothecarium) before closing it; and also to lay on some externally with the lint, and then apply the plasters, &c. If the vessels are very large veins, they will require some compression; (farther from the heart than the wound, as the blood is always returning to the heart by the venous circulation.*) But if the blood is thrown off at a distance, at each pulsation of the heart, the cut *artery* must be taken up, if of any size. The patient in all bleeding cases should be laid on a table, in a passage; and as


* Just the reverse of the practice in bleeding with the lancet: for in this we want the blood to flow, but to stop it in the wound; of course, the ligature is to be below the wound.

the bleeding may be excessive before a surgeon can arrive, it will be necessary to stop the circulation in the limb, by the means of a temporary tourniquet. This may be made by cutting two holes as large as will admit a finger in a piece of stiff leather, about five inches long, and two or three broad. The holes are to be made a full inch apart, near the centre of the leather, and in its longest direction. A strong garter must be passed under the limb, putting the leather directly over the limb: each end of the garter is to be then drawn through a hole in the leather; thus including the limb. The ends of the garter are then to be tied, not immediately down on the leather, but at a small distance from it, so that a small but strong round stick, about four inches long, that will not bend, may be put over the leather, and under the knot in the garter, and then twisting the stick it will gather up the loose garter, and draw it tight to the limb. It will be best to apply the tourniquet on the upper arm, which having but one bone, the pressure on the artery is made more sure and lasting; and so on the thigh for the same reason. A small doublet of linen, made thicker and larger than what we use in bleeding, may be laid immediately over the artery when it can be felt. It will require a pretty smart twisting to stop the artery: the effect will be instantly perceived by the blood ceasing to flow, and the pulse at the wrist stopped, if in the arm. It would be well, in a great flow of blood, to tie a handkerchief on, very tight, till the temporary tourniquet will be ready, and this may be farther assisted by stuffing some linen or woollen (rolled up) on the side where the artery runs.

This in the arm runs very near the inner seam of the coat all along; and in the thigh may always be felt about the groin, proceeding downwards towards the inner and posterior side of the knee. When a wound is too high up for any ligature, the crural artery may be pressed in the groin, with the fingers; and over the

☞ A piece of harness, or old shoe sole, or even a pasteboard, will do for the tourniquet.

first rib, near the end of the collar bone, towards the shoulder, so as to stop a bleeding in the arm. In some bleedings from the upper part of the foot, the tibial artery may be pressed with a bandage; or the fingers, for a while, about three inches above a line drawn from ancle to ancle. It will be found on the exterior side of the bone, not more than half an inch from the shin bone. These means cannot be continued long, but they may save life by arresting the circulation till a surgeon arrives. And this should be persisted in, even if it be for a whole day.

 Some large incised wounds in the foot, are apt to produce lockjaw. The foot must be kept warm, day and night, by a foot stove, from the day after the hæmorrhage ceases, and opiates, with bark, given. A wound in the crural artery, near the groin, is ultimately mortal.

LACERATED WOUNDS.

These may be inflicted by splinters, nails, teeth, horns of animals, guns, machinery, &c. They seldom bleed so as to require restraint, as in the incised wounds. In some bad constitutions they do, and then we expect mortification or lockjaw, or both. When the wound is considerable, the parts must be laid together, and a large poultice of bread and milk, or mush and fat, kept on for twenty-four hours, to soothe the irritation; and some laudanum given. After the above time, or at most thirty-six hours, it will be necessary to dress the parts in a different manner: the loose flesh must be strapped together, with straps of sticking plaster, and kept up with rollers, and some lint, dipped in equal quantities of laudanum and Turlington's balsam, and laid over the surface, but not under any loose flesh: the mixture will find its way to these parts, as it gets out of the lint. A poultice of scalded camomile must cover all. Bark and wine should be given freely, day and night; and when any apprehension of lockjaw, laudanum must be given every four hours; and the

bowels kept open with calomel.—See lockjaw.—Warmth to the parts are often necessary, by bladders of water, or packs of warm bran. When a suppuration has taken place, the basilicon and lint will be sufficient dressings, which are to be renewed every twelve hours. If the wound is on the foot, a foot stove by day, and a warm brick by night, is indispensable. A horizontal posture is also necessary in wounds of the lower extremities.

In all kinds of wounds, if the article that caused it is in the wound, it should be extracted; but when balls are deep and firmly fixed, they had best be let alone; they will sometimes work out after many years; and many articles in the small way will come, when there is a free suppuration.

CONTUSED WOUNDS,

Are such as are inflicted by stones, clubs, logs falling on the limbs, &c., without carrying away the flesh, but merely bruising it badly. If they are very severe, they may cause the death of the part, and it will mortify and slough out. But in most cases a severe inflammation follows. In this latter case we are to restrain the inflammation and suppuration by cold applications of lead water, sal ammoniac and vinegar; and when it will suppurate in spite of these, they may be poulticed and opened, and dressed with basilicon. It will be also requisite to add general means to reduce the inflammation at the very onset, by low diet, rest, purging and bleeding: especially if the patient is of a plethoric habit.

When the parts are farther injured, but not broken, we may stimulate them by the volatile liniment, spirit of wine, spirit of turpentine liniment, &c., and if there is a certainty that they will not recover without sloughing out, bark and wine must be taken every hour, and a poultice of camomile, scalded in spirit, applied to the parts, till they come off. They may then be healed with basilicon.

ULCERS.

Ulcers will ensue, in some constitutions, from any cause that will break the skin: such as small boils, scratches, bruises, and lacerations neglected. The following divisions, or species, are nearly the arrangement made by Dr. Physic, of Philadelphia.

1. *Healthy ulcers*.—These appear in persons with apparently good health. Their edges have no callus, the bottom is covered with red granules, pouring out a cream-coloured matter, of a bland nature. They are free from pain, and fill up regularly and speedily, when attended to. Such ulcers are to be filled up with lint, once or twice in twenty-four hours, and the whole covered over with a plaster of wax and oil, to exclude the air. The limb should be kept horizontal. A little Turner's cerate may be used to cicatrize it, when filled up. The diet should be plain and moderate. If it becomes tardy in healing, a bandage and some plasters,* to draw the edges nearer together, may be used; and over that a roller reaching from the toes to the knees, when the ulcer is on the leg.

2. *Inflammatory ulcer*.—This is mostly confined to such as have lived too freely; a retrenchment is therefore indispensable. These ulcers do not suppurate well, being either dry at bottom, or having an ichorous discharge. The edges are raised and ragged; they are very red, and this colour extends to the sound parts: they are exquisitely painful, at least occasionally. The bottom of the sore is uneven, and when wiped off, will be found to have some white filmy coagulations adhering to it. Rest and a horizontal posture are necessary; and in full habits, bleeding and purging. After bathing the ulcer in warm milk and water, a poultice of bread and milk must be applied. When the inflammation resists the poultice alone, some lead water, made with twenty to forty drops of Goulard's

☞ Common diachalon, half a pound; rosin, one ounce; melt and spread on strips, whilst melted. The strips may be from one to two inches wide.

extract, to one ounce of water, may be used to form the poultice. The extract is less irritating than the sugar of lead, from some cause; may be, from adulteration. This is worthy of notice. If the ulcer refuses to form good matter, a two grain pill of calomel may be used every night for awhile, and the sore dressed with a weak mercurial ointment, made with thirty grains of red precipitate to one ounce of cerate; and as soon as it is fairly suppurating, it may be treated as the healthy ulcer before described. If proud flesh arises, it must be kept down with lint, or burnt alum, or blue stone, or lunar caustic, as it may require.

3. *Oedematous, or dropsical ulcer.*—Some of these are no ways different, except in the watery collection, from the aforementioned; (2) being purely inflammatory, and to be treated as such. The general habit of the patient will show. A horizontal posture, and drinks of cream of tartar, are here peculiarly necessary. But there are oedematous ulcers from quite an opposite habit, or from a broken down constitution. Bark and steel are here to be used, with bandaging from the toes up; and the dressings must be somewhat stimulating. The basilicon salve alone, or with a portion of spirit of turpentine laid on warm, may be tried, or the basilicon alone, united with thirty grains of red precipitate to the ounce. If greasy dressings do not agree, some diluted Turlington's may be substituted, or a wash made with a grain, or more, of lunar caustic, dissolved in an ounce of water, filling up the sore with lint. Mercury may be also used internally. The corrosive sublimate in pills, or tincture, in doses of one-eighth of a grain, twice or thrice a day. The feet should be elevated somewhat above a horizontal, to prevent the watery swelling. As soon as the ulcer discharges good matter, the dressing may be merely basilicon and lint, or a little finely powdered rhubarb and chalk, if the salves do not agree. A pair of leg-gings, so as to give an equal pressure up to the knees, will be useful for a long time after the ulcer is well; and if the feet swell after using this, the patient must

wear a tight pair of buckskin shoes, in addition to the leggings. The drinks may be a little stimulating: such as mulled cider, or diluted porter, or port wine and water; and the diet, mush and milk, with a portion of fresh meat.

It is possible that the foxglove might be used with advantage, or any of the warmer diuretics, in these ulcers.

4. *Relaxed ulcer*.—This differs from the oedematous of the low kind, in having no watery collections; and in most cases being caused in a great measure by the climate or soil. It is found most obstinate in bilious necks of land. No external dressings will be sufficient in many cases. There is some matter formed, but no flesh; a proper degree of inflammation must be excited through the general system, by bark, wine, and steel. The ulcer will then heal by the application of lint and basilicon, and when filled up, may be cicatrized with Turner's cerate. If, however, there is any farther delay, it must be strapped and bandaged. See the method at the end of this chapter.

5. *Sloughing ulcers*.—These depend on the ill condition of the whole system, or of the limb, or part affected. They will sometimes heal to a great extent, and then the whole new formed flesh dissolve and come out. Boils of the honey-comb kind, are apt to form such ulcers. Bark, and wine, and steel, with a generous diet, should be used, and the sores dressed with a thick coat of powdered camomile, and filled up with lint. Dossils of lint, dipped in Turlington, may be tried occasionally. If they are fœtid, a dressing of carrots may be used for a few hours; or when they cannot be had, a portion of fine charcoal may be mixed with the powdered camomile,* or sprinkled on underneath the camomile. When they are painful, a warm decoction of poppy heads may be used to foment them; or in place of this, a decoction of camomile, with

* Perhaps the pyrolignous acid, diluted so as to be borne on the tongue, would answer the double purpose of removing the fœtor, and changing the condition of the sore.

half an ounce or more of laudanum. The bandaging is here absolutely indispensable. If the ulcer is on a part that does not admit bandaging, strips of the plaster must be put over, in a stellated form. A change of place to a higher, dryer, and more porous soil, in the country, must be resorted to when the ulcers are very obstinate. Motion in a limb, with one of these ulcers, will generally bring out the new formed flesh; the person should be lifted even into bed. A little Turner's cerate round the edges, on narrow strips of linen, will be useful at all times.

6. *Indolent ulcers.*—These ulcers are nearly stationary, having large, hard, rounded, and elevated edges. There is a total absence of inflammation. A white lymphatic composition adheres to the level bottom, which cannot be wiped off only in places. As these ulcers are old standards, degenerated mostly from inflammatory ulcers, they may by too much stimulating be brought up to inflame again: so that our stimulating articles must cause a *suppuration*, to do good instead of harm. The author has succeeded, in some cases, by letting the dressing stay on double time, say forty-eight hours; and in others more indolent, by putting on basilicon with pledgets of lint, very warm, so as to give considerable pain by the heat. In both ways matter was formed. The edges require taking off with caustic, which is to be done by rubbing them with a stick of vegetable caustic. When the old edge is eaten off, any new risings may be kept down with blue vitriol. Various expedients have been in use, to excite the bottom of the ulcer to a good discharge, by sprinkling it with red pepper, red precipitate, cantharides, and other stimulating articles. But when these fail, it will be necessary to use a caustic: some of the latter's (nitrate of quicksilver) caustic, may be applied with a feather; or a drachm or more of oil of vitriol may be beaten up with an ounce of lard: some of this is to be spread on a coarse soft rag, that will cover the bottom of the sore, and applied with a gentle pressure, by means of some tow. When the callous is removed,


the ulcer may be dressed with basilicon, and red precipitate, using thirty to sixty grains to the ounce of salve. This is to be spread on lint, and the sore filled up with fine tow, and covered over with a simple wax plaster to exclude the air. Strapping and bandaging is also useful, and when they are slow to heal, (after taking off the callous surface) one-eighth of a grain of corrosive sublimate may be given in a tincture, or pill, twice or thrice a day; which will often give them a healthy condition, and cause them to fill up.

A plan has been used by a Mr. Baynton, of curing these ulcers, by strapping and bandaging alone.—Straps,* from an inch to two inches wide, are to be passed quite round the leg, crossing the sore, and covering the whole ulcer several inches below, and two or three above it, and drawn pretty tight. This should be done before the patient rises from bed. A roller of cotton calico, or flannel, is then made to pass from the toes quite above the sores. The leg must be clean shaved, and there should be a small slip cut out of the side of one of the plasters, in the most depending part, to let the matter escape. If it is very painful, the patient must lay down; and if that will not relieve him, some cold water may be also poured over his leg. These dressings are to be applied daily.

There are an immensity of other ulcers, mostly undefined, in different parts of the system: in the throat, skin, and other parts; which are only to be cured in an empirical way, or not at all. The principal of these are called scrophulous ulcers. The waters of Holywell, in England, is famous for allaying the irritation of such sores, when external; and why may we not imitate this with distilled water? Mr. Swaim's panacea has certainly made some wonderful cures; and has also, like other medicines, failed. But why should physicians continue it after they perceive it to be in-

* Take diachalon, one pound; rosin, half an ounce to an ounce; and melt with a little water in the cup; when they are united, they are to be spread whilst melted, (but not so hot as to run into the linen) on the strap, for binding.

jurious. Let us give it all the privileges of mercury, at any rate! Which has often done great mischief, whilst it has been the only cure to some diseases of the very name and appearance of those it injured.

Solutions of the lunar caustic, in various preparations, from half a grain to three or four to the ounce, will cure certain ulcers; generally those of a relaxed (or touch me not) appearance. Hemlock has also been used as a poultice, or a wash, and taken internally, for ulcers that seem to be of a cancerous nature. In ulcers of an extraordinary irritability, the leaves of the *laurus nobilis* (crowning laurel) is found useful and healing. They may be had of the apothecaries who import liquorice; it is always wrapped in those leaves. A strong decoction is used; but the fresh is best. Sea bathing cures many kind of ulcers; and our sulphur springs are notorious for their cures. The *dulcamara*, or bitter sweet of our gardens, makes a famous wash in foul ulcers.  See the chapter on venereal disease, for *venereal ulcers*.

GENERAL OBSERVATIONS.—All proud flesh is to be repressed by escharotics of suitable strength, or by pressure. Lint pressed on is the most mild; burnt alum, the next, red precipitate, blue vitriol, silver caustic, and common vegetable caustic, are to be used, if needed, in the above succession; these caustics and rules, are equally applicable to callous edges in any sores. Every sore, besides its immediate dressing, is to be filled up with fine tow, or lint, and then covered over air tight, with a plaster of wax and oil spread on brown holland, or on paper. The limb, in most cases, must be kept horizontal. Sitting in a chair, especially with a hard bottom, will often defeat all the means of curing an ulcer in the extremities, as it paralyses the main nerves. The limbs are never to be permitted to be cold: a foot stove, warm bricks, or covering in bed, must regulate the heat.

Long standing sores should, when closed, have an issue near the place after they are closed, and the patient purged, and live low. Bandages are to be so

carefully put on, that no swelling must be made about the foot or toes, by the bandage being loose there and tight above. Fine flannel is the best binding, and common white domestic muslin the next best. Cleanliness about the parts, and in the room, are absolutely necessary to give vigour to the system: for this purpose the rooms must be aired daily; chloride of lime sprinkled when there is a fœtor, and the floors scoured, or rubbed with sand, and a stone.

Red precipitate must not be too long applied to sores, for fear of salivating. New flesh must not be roughly treated; and therefore no corrosive applications be made to it. Wounds and ulcers cannot be too soon closed, when dressing them. Long exposure, and too frequently inspecting them, will prevent suppuration. Let all be ready before opening them. When sores do not cure well with salves, dry lint and spirituous tinctures, and dry powders, are to be tried: such as rhubarb and chalk, camomile, and the 'Traumatic or Turlington's balsam; which latter is an excellent dressing.

Before quitting this subject, it may be well to notice that there are ulcers frequently found on the end of the fingers, mostly in children or youths, where the nail has been in part, or wholly destroyed, by mashing, by burns, or by machinery. The end of the finger clubs, *i. e.* becomes enlarged, and flattened, or misshapen, also raw, and extremely painful, especially at night. This enlargement is for want of support, in most all cases. After washing them in milk and water, a little lint must be laid on longitudinally, very thin, passing over the end to the opposite side. A slip of fine old linen, or fine silk tape, about a quarter of an inch wide, spread thinly with 'Turner's cerate, is then to be carefully wrapped in a spiral way, so as to press the end into its proper form; but the pressure must not give pain, only for the moment. If it does not suppurate, some very small quantity of red precipitate, made into an ointment, with basilicon, must be smeared on the lint. The support thus given, if carefully managed,

will relieve the pain, and cause the skin to grow up, even when nearly an inch has been destroyed. Care must be taken when the nail is left, that it is not pressed into the sore: portions of it must be cut off, as fast as loose.*

BURNS AND SCALDS.

We may consider these as either superficial, or deep. They are attended with great pain, when of much extent and deep: they quickly tend to mortification. Burns are apt to heal with a very uneven surface, and leave ugly scars in most cases.

A smart fever attends in extensive burns; and when the parts have been greatly injured, the patient becomes comatose, the pulse feeble, the extremities cold, the lips blue, and death soon follows, without the burns even ulcerating. In cases less severe, ulcers will form, and then mortify. Death will also ensue from a mere inflammatory action, extended superficially over a large surface; and especially when steam has had access to the lungs; and what is remarkable, the patient will, in some instances, feel little inconvenience in the lungs, till death is at hand.

In all large superficial burns, there is no application better than one or two dressings of lead water and oil, applied over the injured surface. But both those articles have their inconveniences; the lead will produce colic if repeated often, and the oil is too cold and macerating. Therefore, after the pain is somewhat assuaged by one or two dressings of the above articles, say in twelve hours after, a liniment must be prepared of proper consistency. For this purpose, four ounces of spermaceti may be melted with a pound of fresh lard; or if no spermaceti is at hand, a little wax and oil will do. If the discharges look well, viz. thick and white, or yellowish, and the surface be of a good red, this dressing

* The latter's caustic, for callous ulcers, is made by dissolving one ounce of quicksilver in about four to six of aquafortis; just enough to eat up the quicksilver, and keep it in solution.

may be continued; but if the surface looks pale, some additional stimulus must be used: such as the white varnish of paint shops, or some basilicon made thin with spirit of turpentine. And in all tardy cases, a wash made with a strong decoction of oak bark and camomile will be useful. The liniment must be in this (as in all cases after a while) changed for salves; which being more firm, will allow the parts to harden and heal.

As what is said above is applicable to extensive cases, we may observe, that if there is much fever, bleeding will be requisite; and when this is quite gone, if the wound is slow in healing, astringent washes, bark and a good diet, will be useful. The bowels, in all cases, must be kept a little loose; but not purged, where it is so painful for the patient to move. In dressing those large surfaces, pieces of linen must be used, say of about a foot long, and when one is taken off and the part dressed, another may be removed. This is far better than to expose the whole at once; and in all cases it is a very bad practice to keep the naked parts exposed one minute longer than is necessary to lay on the dressing. Opiates every four or six hours, or oftener, will be necessary to reduce the excessive pain. Where sweet oil, or linseed oil, is not to be had, lard must be used, immediately after applying the lead water. The lead water may be made by using a tablespoonful of Goulard's to twelve ounces of water, or in its place three or four grains of sugar of lead to one ounce of water. All proud flesh that rises must be kept down by fine chalk, or a little burnt alum and lint, or if need be, with lunar caustic, and a roller over some lint, when it can be used.

In burns of not much space, of a superficial kind; if the skin is lost, the lead water and oil may be applied till the pain ceases, or a thin poultice made of meal and lead water, may be laid on and kept on, changing it when it gets warm. The parts may then be dressed with Turner's cerate, or a simple salve of wax and oil, till well. Many cases happen where it

is doubtful if the skin will be lost. It is always of much importance to save it. This must be tried by laying over the parts, successively, some dry cold article: such as a bladder of pounded ice, or of very cold water, made by dissolving some salts in a bladder: in all cases preventing any wet from touching the burned skin.

Cotton is sometimes applied with good effect in such cases. Where no better means are at hand, a piece of glass may be laid on the burned skin, and cold water poured over it. After using the cold for a quarter of an hour, the parts may be sprinkled with scraped chalk. If after this, the skin comes off, Turner's cerate may be used till well. In cases where the fingers or toes are burned, great care is necessary to prevent them growing together. Salves must be spread on both sides of a rag, and laid between.

Where gunpowder has been blown into the face, it should be carefully picked out; and as some of those sores refuse to heal, they had better be chipped out, after all inflammation has ceased, so as to give a new and healthy surface: they would then heal.

All that is said above, respects superficial burns. When they are deep, or the flesh much injured, there is great danger of mortification, if not of lockjaw.—After giving an opiate or two, to assuage the pain, bark, with wine and vitriol, may be taken inwardly, and the parts dressed with a liniment, made by softening basilicon, with spirit of turpentine. If the parts do well with this, it may be continued; but if the wound looks pale, or the discharges dark and thin, and blisters begin to form on the skin near its edges, it will be necessary to use something more antiseptic, and the powdered camomile may be sprinkled very thick over all the sore. The bark and wine may be administered with opiates, day and night, keeping the bowels regular with enemata. Narrow blisters may be applied to the sound skin, near to the gangrenous vesicles, and withal a good diet and wine allowed the patient. The dressing may be renewed by washing out the camomile with a

sponge dipped in warm spirit, and applying fresh camomile. When the tendency to mortification is arrested, the parts may be dressed with white varnish, or the liniment above mentioned. When the applications with turpentine are too stimulating to the sound flesh, it will be well, in the subsequent dressing, to put as a defence, Turner's cerate all round the edges of the ulcer. There is an astonishing difference in the opinions of medical men about the first dressing of burns; some recommending the most stimulating, others the most cooling. We have adopted the plan that all great practitioners of former days approved, disregarding the disputes of the present time. We may also observe, that there must be a succession of grades in burns, that will often puzzle the most acute to ascertain instantly the damage; hence, some very injurious burns might at first pass for slighter ones. The prescriber must, therefore, look to this, and apply his remedies accordingly; and, no doubt, such cases have often caused medical disputes about the necessary remedies.

There is no good reason why the analogy of medical practice should be abandoned in the cure of burns.

EXTERNAL INFLAMMATION AND MORTIFICATION.

Phlegmonous Inflammations are such as at their commencement are confined to the inner surface of the real skin, and the contiguous cellular membrane, which end after a short period in resolution, suppuration, effusion, or gangrene.

Strains are inflammations, without suppurating, of the sinews and ligaments of the joints or of the muscles, about the fractures of a bone, which continue a long time.

Phlegmonous inflammations are caused by various kinds of violence: by simple exertions, by foreign bodies forced in and retained: as balls and splinters; also by acrid irritations, by mechanical frictions, by

fire, by frost, by a forced circulation: as in the breasts of women. By the remaining action of inflammatory fevers, by deposit of eruptive diseases; and finally by an apparent spontaneous effort of the system to relieve itself from some plethora or fulness.

The phlegmonous inflammation begins with an itching of the parts: dryness, ruddiness, swelling, throbbing pain; and when considerable, a general as well as local fever. In fact, the local affection becomes like another heart, distributing a forced circulation from the spot to the extremities. The limbs, the breasts of women, the face, and perineum, are very commonly the seats of phlegmon. After continuing from seven to fourteen days, with increasing size and pain, (provided the tumours have not been discussed, or become indolent) the patient is seized with repeated shiverings; the most prominent part of the swelling feels soft, changes colour, and soon after breaks; discharging blood and matter, and so continues a day or two, till the hardness is reduced, and the contents evacuated. But this is not always the case; for in bad constitutions, or where the injury has been very severe, or great obstruction to the circulation of the organ concerned; in such cases it is no uncommon thing for all the above symptoms of phlegmon to change, and gangrene to ensue. The particulars of which will be marked under the head of mortification, in this chapter.

In strains, the parts swell immediately nearly to their full size, and become often, though not always, discoloured; blue or a slighter red than in phlegmon: great pain is experienced, particularly in moving the part. The time of their continuance is indefinite; seldom less than a month, and frequently many months. They, however, undergo a change so far as this; that they are at first highly inflammatory, and subsequently are continued by debility, and the irritations so often given by the patient's restlessness and impatience. To know the time of this change is highly important to the cure; but, in general, it may be found out from the subsiding of all febrile action; from the magnitude

of the injury compared with the duration; the hardihood of the patient, and especially by the swelling being absent on rising from the bed, though enlarged by night: this, however, is supposing him to set up during the day. There is sometimes a kind of intermediate state, which is generally the patient's fault.

CURE OF PHLEGMON.—As soon as the disease is fairly made out, the patient should apply the remedies, according to the magnitude of the disorder. To produce a resolution (or dispersion) is the first object. This may frequently be obtained by rest, by a posture suitable to facilitate the circulation, by low diet, by purging, by bleeding, as general means; and by cold applications of strong lead water constantly kept to the parts, and leeching, as topical remedies. As soon, however, as it may be judged inexpedient to continue this plan; the next is to moderate the extent of suppuration. This is done by emolient and warm poultices of meal and oils; and by the application of a blister *very near to*, though not *on*, the inflammation.* In cases of inflamed breasts, and inflamed face, this is an all important practice. When matter is fairly formed, (see the symptoms) it must be let out without any delay, lest it penetrate to some other part. The opening women's breasts is never to be delayed, though so often let alone. The corroding of the milk vessels, or even penetrating the chest, has been the result of such imprudence. The opening should be so large as not to close up before a day or two; and all matter must be gently pressed out. In many extensive cases, (where a physician has not been at hand,) the suppurations will be so large on some parts of the body or limbs, and the opening too, that it will be necessary to draw the lips of the wound together, with slips of sticking plaster, and to bandage the parts with a flannel roller, to keep them in contact.—Lodgments of matter must be prevented, not only by

* The blister must be on the white uninflamed flesh, to do good, even if twelve inches off.

laying in a proper posture for its discharge, but by being careful to cause the bandage to press all the most dependent parts, that would otherwise become pockets for the matter. When, however, the hardness is not removed from all the phlegmon, by the evacuations, it will be well to keep on the poultices a day or two after the opening is made. If extraneous matters have not been taken out at the beginning of the inflammation, they must now come out, and the opening of course must be large enough; which is generally all that is wanted to discharge them; and a little basilicon and lint is all that is needed over the opening.

When phlegmonous inflammations remain long without suppurating, and still seem healthy, they must be stimulated a little, by bathing them frequently in warm milk and water, or a decoction of mullein leaves; and by laying on poultices of onions; or by adding a table-spoonful of spirit of turpentine to as much lard, and mixing this with every poultice.

If the parts do not well admit a poultice, a plaster of galbanum, or of softened Burgundy pitch, or a little tar and beeswax may be used; which may be made of an excellent consistence: a few grains of camphor, previously dissolved in the smallest quantity of spirit of turpentine, will correct the odour of the tar. When extensive suppuration takes place, much debility will ensue; and bark, with wine and good rich diet, will be necessary to keep up the patient; more especially if he be old, or feeble in constitution, or the phlegmon has succeeded previous disease. In inflammations from broken limbs, or from external rough wounds, it will be often necessary to administer opium regularly, to prevent and allay the spasms; and in all cases where the patient has lost much sleep, a good large dose of laudanum will be of service at night.

CURE OF STRAINS.—This is often a tedious business. If they are considerable, bleeding, either general or topical, by leeches or both, will be very requisite.—The application of very strong lead water applied cold, and the parts kept constantly wet with it, by keeping

several folds of old linen, impregnated with the lotion, will also be necessary; and to this may be added, free purging, a low diet, and an easy horizontal posture.

When the first stage may be supposed to be about receding, (see the symptoms) articles of an intermediate nature may be applied: such as solutions of crude sal ammoniac in vinegar, pouring on cold water from a kettle. But the best application will be a blister: which must be kept running by fresh plasters. After a course of this sort, and when nothing but debility and swelling remain, still there is much to do; and we may use the most stimulating plan; as also some mechanical means: such as camphorated spirit, ether diluted with spirit, ether in which some pungent oil is dissolved, tincture of red pepper, strong decoction of oak bark, bandages of flannel, and laced boots, if it be the ankle; or if the knee be the strained part; strong buckskin should be laced over it. In many cases, our new article of gum elastic might answer valuable purposes. Such supports would be, as it were, artificial facias.

Mortification.—The ability of a part to sustain itself, by regulating its sensibility, by retaining its heat, its self nutrition, its antiseptic power, and its laboratorial functions (by which it performs operations necessary for the well being of the whole system) forms what may be termed the constitution of the part.

It is evident that those powers may be materially lessened in a part, so as to approximate dissolution, and still continue a long time without much inconvenience; provided they are not put to any test.—By attending to this, it will be seen that mortification may arise from very different causes. A simple fever will sometimes end in mortification of the extremities. An excess of circulation in a phlegmon, or a deficient circulation, may cause mortification. But the most robust constitution of a part must yield to various causes: such as the tying a limb too tight, which instantly interrupts the constitutional powers, and brings

at the same time a forced circulation of the heart and arteries to the spot. Great and long continued pressure does the same. Long continued cold, especially when succeeded too quickly by heat, is a very common cause; and the taking up an artery, which is necessary to the support of the limb, is a frequent source of death to the parts. Dr. Hunter has said that mortification comes from an inequality between the power and action of a part, which is nearly what is stated above, more diffusely.

SYMPTOMS.—If, after a phlegmonous inflammation has continued some days, the heat and pain diminish, the swelling becomes soft, and changes its colour to a dusky appearance or a stagnant hue: if the fever subsides, and the skin begins to spot, or raise up in vesicles filled with humours, transparent, dark, or bloody, and withal a crepitus is felt on pressure, as if air was incarcerated in the swelling, we may conclude that a gangrene is formed; which, though curable in some few cases, more generally ends in mortification, or death of the parts. But as seen above, mortifications happen from various causes besides phlegmon, and are not confined to the surface, more than inflammations are: though in this chapter no others are contemplated. In mortifications, other than from phlegmons, the parts become senseless, cold and livid, or purple; the skin either elevates with dark or bloody vessicles, or becomes loose, so as to be pressed off with little force; all of which are soon followed with actual death, or mortification of the parts.

To distinguish a gangrene succeeding a phlegmonous inflammation, from an erysipelas; we may observe that fever generally precedes erysipelas, though not always; that the eruptions are very quickly to be perceived in erysipelas, and that the swelling is instantly extended nearly to its full limits; whereas in phlegmon, it generally begins on but a part of what it finally occupies. Moreover, the fever keeps up in erysipelas under the eruption. However, there are cases of erysipelas, that have all the bad appearances

and issue of gangrene; and such cases will need the same treatment as gangrene. See the chapter on erysipelas.

CURE.—Although taking of blood in phlegmon, where there is too great an action, will often prevent mortification; yet it will be found too late when symptoms as above described appear; and it will be necessary to proceed with a vigorous course of stimulants: such as bark and wine, given to full extent, day and night; as also drinks, acidulated with mineral acids, and a good diet, of the most nourishing kind.

The bark should be of the finest quality, and well ground or levigated. If it cannot be borne in substance, it may be taken in the richest decoction that can be made. It is a lamentable thing that some of our northern physicians know so little about bark. It subjects them to all kinds of imposition in the article; and they, of course, have a poor opinion of it. But southern folks know from experience; and thousands are now living that would, ere this, have been in their graves, but for Peruvian bark. It is the sheet anchor in all that depends on debility, general or local.


For topical applications, there is nothing perhaps equal to poultices of camomile, stewed in spirit; these are to be laid on the gangrene; and when the parts have mortified and come out, the camomile must be applied, in fine powder, half an inch thick. When the ulcer is cleansed out, the Kentish ointment, or white varnish, may be applied with a brush or feather, and the opening filled with lint or fine tow; and finally healed with Turner's cerate: taking care to have it well bandaged when the parts are flabby, or disposed to recede.

In certain mortifications of the toes, attended with pain, opium every four or six hours, has been used with great advantage; but the bark and wine need not be laid aside, and it is probable that opiates might be well used in all severe and painful cases that verge to mortification.

CARBUNCLES—Are flat extensive boils, that open in

many places, and have a strong tendency to mortify, especially in old subjects. They mostly affect the back, up to the neck; and sometimes the thick flesh of the thighs. They require the bark, wine, and camomile dressings; and when cleaned out, the salves before mentioned; or when salves do not answer, lint dipped in Turlington's; and powdered camomile.

In every case of threatened, or actual mortification, blistering on the sound margin will prevent their extension; and it is said, that even in erysipelas of a dubious kind, their good qualities are manifest. In every case of threatened mortification, and more especially when it has taken place, the greatest cleanliness of person and room should be enjoined; as also the purification of the chambers with the chloride of lime.

 The levigated bark should be always used in mortifications. See the apothecarium.

CANCER.

Cancer seems to proceed from a degeneracy in a gland, in the skin, or of other parts; by which organizations of a heterogenous substance are formed, with the power of growth; and also of secreting a humour that is foreign and destructive to the human system. Those local degeneracies seem to proceed in most cases from some general causes that lurk in the system; and, therefore, little can be expected from medical aid. Nevertheless, it is the duty of medical men to do all in their power. There has been a few cases that give some room to believe that it may be communicated by contact. The circumstance of husband and wife suffering with cancers, is notorious; and if it be found that these cancers are generally in places that may come in contact: such as the face, and the breast and face, there will be still more room for suspicion.* Women from forty to fifty are said to be most liable; especially spinsters and nuns.

* Several are known to the author; but still he doubts.

CAUSES.—Blows and bruises of the parts, indolent inflammations, terminating in schirrus; cessation of natural discharges; grief, care, and violent passions, have all been blamed as the more immediate cause of cancer: no doubt, most of these were aided by a predisposition. In what the predisposition consists, we are quite at a loss to say; perhaps it may be an overbalance of some of the constituent articles that make up the substance of the body, or a deficiency of some of them; for it does not appear to be merely a disorder of over, or diminished action of the parts: stones are formed by an excess of uric acid. It seems to be a fact, that all indurations have a march to a cartilaginous, and then a bony substance, unless they are stopped by ulceration. Ammonia seems to be the exciting cause of the chimney sweeper's cancer, rather than mere dirt. Notwithstanding the difficulty of discovering interior causes, yet there are certain habits which are readily perceived, in which cancers (others than those in the breasts of females) are more frequently found. Three of these have been noted by the author.

1st. A ruddy, dry, or parched state of the skin, ready to crack, and hard to heal; in persons we call hearty; though not in general of full habits.

2nd. A corpulent and rather coarse habit, with relaxed fibres: sometimes ruddy, but more often of a natural colour, or even pale; exactly such persons as we should expect to find the subjects of gout, angina, pectoris, and fistula, if they were great drinkers of wines, or ardent spirits, so as to inflame the whole system. It is evident, however, that in such persons as we have described, (though no drinkers,) that their digestive powers are an overmatch for their prudence, exercise, and excretions.

3rd. An emaciated habit, yet with good apparent health; mostly elderly persons, whose mottled skins seem to lay on the very bones. Almost the whole of the cancerous cases seen by the author, excepting those peculiar to the female sex, were in one or the other of the above described habits. No. 2, the most fre-

quent; No. 3, the least. If the above observations are correct, a better judgment can be formed both as to reality, and the probability of a cure; and, moreover, it may be a warning to such persons to correct all the causes that conspire to form such habits. In those under No. 1, the persons might avoid all spirituous and spicy articles in diet; bathe in warm water, avoid travelling, and exposure to drying winds, and cold frosty weather. In No. 2, the remedies are very plain: greater exercise and less food. In No. 3, there is more difficulty; but a change to a more childlike food: as milk and mush, rice, &c., which might lay more flesh on the skeleton, and be of a less inflammatory nature; avoiding severe weather would also be advisable. A regular state of the bowels is requisite in all cases.

SYMPTOMS.—As the parts attacked are various, so are the beginning symptoms; but in all cases, except a few, a schirrus, or a hard tumour, becomes an ill-conditioned ulcer; discharging a fœtid ichorous, and often a bloody humour, attended with great pain. Shooting pains also attend whilst the schirrus state exists. The edges of the cancerous ulcer are hard, uneven, and reverted. The bottom uneven, and disposed to form a kind of fungus. They contaminate the whole system; affecting the neighbouring glands, under the arm pit, when the breast is the seat of the cancer. Dypnoea, cough, nervous irritation, hectic fever, and death, sooner or later, follow. The composition of cancers are various: they are mostly a tissue of gristly, or cartilaginous lines, with flesh between them: sometimes coagulated blood in the interstices, and sometimes a watery sack, with a smooth fungus within. At other times they are more of a hydatid nature. This knowledge has not as yet been attended with any advantage. There are also sores, apparently simple, that secrete a humour, which corrodes the diseased flesh: some surgeons deny their being cancerous. because they are more curable.

Cancers in the breasts of women proceed from small

or large schirrus tumours, which begin with shooting pains, and after awhile grow to the skin, and then to the muscles, producing varicose veins, a puckering in the skin, a hard, uneven surface, and often covering up the nipple. The colour at first is dusky and leaden, and then changes to a dark red. The tumour becomes quite polished just before it ulcerates.

Cancers in the uterus begin with a discharge not unlike whites, fulness, bearing down sensation and weight, shooting pains across the pelvis, and a procrencia of the uterus. Upon examination, it is found enlarged, and hard in parts, more particularly about its orifice, (os uteri:) in process of time blood will be found to issue from an ulcerous ragged sore, discharging at the same time, or before, a fetid ichor. The pains will be incessant, and the distress indescribable. A hectic fever, with sweats, will end the misery.

Cancer of the face will sometimes begin with a mere discoloured pimple, which will enlarge and become an ulcer; at other times it arises from a kind of wart, or from a hard (almost horny) tumour. It will also arise from a lichenlike excrescence on the face.

Cancer on the body begins with hard, uneven elevations under the skin, or in the skin, that become discoloured, and then ulcerate.

Cancer of the scrotum (common to chimney sweeps) begins with a wart that ulcerates at the top.

Cancer of the testes begins with knotty painful tumours, extending to the epididymes, and involving the whole in one mass of disease.

MANAGEMENT.—All authors agree in recommending a low but wholesome diet, and a total abstinence from all spirituous liquors. But this is still more applicable before ulceration. After that, in lean habits, the diet need not be low. All pressure by stays, &c., must be removed, and any other means that might irritate. The using the arm in spinning, when there is any disease of the breast, is very injurious.

CURE.—Extirpation, as soon as the disease is made certain, is the surest relief; and this should be done

before any adhesions are formed, or any glands or other parts affected. There is even in this remedy much difference in the opinions of surgeons. Dr. Monroe considered this a hopeless remedy, from very extensive trials. But it is possible that the doctor was only consulted in the worst cases; and in his day it was not thought to be so essential to extirpate the whole breast, *even for the least cancer*, as it is now known to be. The author's own knowledge of cases is, happily, quite at variance with Dr. Monroe's experience. Others again are quite too sanguine, and consider nearly all cases (even after ulcerating) as curable by the knife, or caustic. Mr. Hill, in his cases and operations, states that he failed in only twelve cases out of eighty; and that nearly all had ulcerated. This is surely a very flattering account. Where the breast is the seat of cancer, if the operation is performed before any adhesion, or even after some attachment, (provided the glands in the arm are not infected,) the cure is nearly certain, especially if there is nothing in the general habit unfavourable.

But if the patient will not submit to extirpation, the plan is to attempt a discussion; which, however, had better be attempted before any of those certain cancerous marks, before noted, have made their appearance.

In this case, the diet must be of the lowest kind, and simple in quality: such as would be given to children, and even this in as small a quantity as will sustain nature; all active motion of the arms (if it be the breast) must be prohibited. The parts near, but not immediately over the cancer, must be frequently leeches. Cooling applications of lead water must be kept constantly on the parts. If these do not answer, some of the poisonous herbs may be applied in ointments: such as conium maculatum, James-town weed, and night shade (*solanum nigrum*;) a very strong decoction of the leaves of either of these, when strained off, may be evaporated in the proportion of a quart to a pound of lard, till the impregnated lard alone is left. It must be stirred fre-

quently, and evaporated slowly. Some of the ointment may be applied day and night. Softening plasters are also useful: such as the ceratum saponis of the shops, made up with oil to a proper consistence. The famous Logan's plaster, is a preparation of litharge, oil and soap, or perhaps of red lead instead of litharge. A very good temporary plaster is made by beating up in a mortar, half an ounce of common new store soap, with an ounce of tallow, and adding to it one or two drachms of levigated litharge; as much oil may be used in levigating the lead as will make the plaster of a pleasant consistence; and when it loses that consistence, it must be renewed. Mercurial frictions may also be tried.

Very little dependance can be put in the use of internal remedies. The extract of cicuta,* mercury, and arsenic, are all, in our day, that are even tried; and that with little hope. Local bathing will be comfortable and useful too, and where topical applications are made, becomes indispensable.

When a schirrus first ulcerates, (though it may be done sooner by removing the skin, with a solution of common caustic) either of the following preparations are proper, viz. three grains of white arsenic, mixed with a drachm of calamine stone: this is to be frequently sprinkled on the cancer. It is recommended by Dr. Thomas. The famous Justamoud used a kind of opiment, made by fusing in a crucible, half an ounce of white arsenic, with one ounce of antimony. It was then powdered and sprinkled on the ulcer, as needed. Arsenic has the peculiar effect of causing sloughs of the cancerous substance, far deeper than the surface, to which it is applied; killing, as it were, the schirrus morbid formation. The ulcer, however, will, in most cases, continue, and it becomes an object to make the

* Two grains of extract of cicuta may be used morning and night at first, and the dose increased.

One-eighth of a grain of corrosive sublimate may be taken, in a bread pill, three times a day.

Five drops of Fowler's solution of arsenic may be used, five times a day, in one spoonful of water.

patient as comfortable as possible: for this purpose, poultices of poppy heads are to be applied, and opiates taken inwardly. When poppy heads are not to be had, some of the fœces that remain after making laudanum, may be boiled in water, and with two or three spoonful of this water, and a cupful of corn flower, a poultice may be formed; this will be a good and cheap substitute.

To correct the fœtor of the ulcer, poultices of raw or boiled carrots are useful; as also two or three spoonful of fine charcoal, added to a common poultice. It is a great convenience also to have good dressings for the ulcer. Dr. Richter, a famous German physician, recommends common tar. It may be mixed with oil, and put on with lint. The white varnish, with one-tenth of flower of sulphur stewed in, with a gentle heat, is a good dressing. Stewed camomile may be occasionally used; but most of the vegetable dressings of cicuta, dulcamara, &c., are now abandoned. The preparations of iron are thought by some medical gentlemen to be very valuable applications to cancerous ulcers, by changing their condition and lessening the pain. The acetate of iron is preferred to any other preparations.*

In cancers of the face, acetate of iron will be very convenient. Borax dissolved in lime juice is another good application: it is very drying. In dressing deep ulcers, some small pieces of very soft sponge might be used with advantage; they could be wet so as to soften them, and yet have a capacity to absorb the ichor from the sore. They might be easily and frequently washed and pressed out, so that with poor people they would be a great convenience.

* This may be prepared by pouring some good vinegar on rust of iron, and shaking the article frequently, and finally pouring off and evaporating to dryness; and then dissolving some of it in water for use. Or by precipitating one ounce of copperas with a quarter of an ounce of soda, and collecting the yellow sediment, which dissolves rapidly in good vinegar, which must be diluted with water.

TUMOURS IN THE BREASTS OF FEMALES.

There are frequently considerable indurations in the breasts of females, that have not a cancerous character at first; they get quite large, and do not adhere to the skin, and are mostly void of pain, especially shooting acute pains. They depend on some general state of the system, perhaps connected with the catamenial discharge, and not on any depraved state of the system. They will last a long time, and if not irritated, might never become cancerous. They should be discussed, however, without delay. All pressure by stays must be removed; no exercise of the arm, as in spinning or picking of small fruits, &c., must be practised. A very low diet should be used, and all cold prevented from having access to the parts. One or two bleedings a month, and frequent purging, say twice a week, sometimes with calomel, and sometimes with salts, are the general remedies necessary. The breast may be frequently washed with cold water. Mr. Abernethy says, he has cured some with little else. Applications of lead water may first be used, and when the system is pretty well reduced by the aforementioned means and a vegetable diet, then some of the ointment (mentioned under the article cancer) of James-town weed, or nightshade, may be applied morning and night.

There is in some cases such an extraordinary sensibility in the skin of the breast, so that a violent inflammation will ensue from some of those articles that are recommended, if applied too soon.*

The application of a comfortable plaster of wax and oil, or of soap and tallow, (see the article cancer) or of gum ammoniacum plaster, as in the dispensatory, will be useful. Mercurial frictions may also be used: changing about with the ointments of James-town and nightshade.

* The author has seen a case, where an ointment of narrow leaf dock has had that effect. The tumour was afterwards discussed by the above means.

ULCER OF THE LOWER LIP.

This is an eating sore, somewhat of a cancerous nature, that is brought on by smoking cigars. The action of the nitre in the cigar is supposed to be the cause. There is not an article that can be found in the materia medica that has not been often used, in vain, to heal these sores. They, however, readily heal on taking off the surface with a knife or scissors; but return again if cigars are used.

If the chimney sweeper's cancer depends on ammonia, and these sores of the lip on nitre, it would seem as if an excess of salines had some part in the formation of cancers.

INVERTED TOE NAIL.

Surgeons have given this name, though not very properly, to a distressing sore, arising most frequently about the nail of the great toe, which presses into the flesh on one side, in consequence of the toe being swelled and ulcerated, (forming proud flesh) and extending over the nail.

A bruise of the toe, or a tight narrow pointed shoe, is generally supposed to be the cause of the disease. The toe nail at length becomes unnatural under the sore, and is often hard and flaky, like the inside of an oyster shell,* (that is, the part that enters the sore.) When it first forms it may often be stopped, either by a proper made shoe, or by the following means: let the nail grow as long as it will, and cut a chasm in the centre of the end like the letter V; have the angle or point to come down quite to the quick, but no farther; and keep it open. It would appear that the nail, in making efforts to close this chasm, will grow out of the sore. The proud flesh must be kept down with burned alum, red precipitate, or a strong solution of blue stone,

* It must be confessed that this unnatural formation is found so early in some instances, as to leave a suspicion of its being the first and true cause of ulceration.

or even caustic, and dressed with dry lint; or with basilicon, if it does not suppurate. When these means do not answer, cutting out a portion of the nail becomes necessary. The best way to do this, is to scrape carefully, a small line as wide as the edge of a half dollar; marking by this line the piece to be cut out. It may be scraped with the point of a sharp penknife, till nearly through, so that with the edge of a penknife it may be divided to the quick, without force or much uneasiness; when this is done, a narrow small scalpel must be laid flat, immediately under the nail, and taking the scraped line for a guide, and keeping close to the nail, it may be pressed back to the root of the nail, and outwards. A lancet may then be introduced under the small flap of the skin, to separate it where it adheres to the toe. So that there will be but three cuts, and only one of them very painful.

The foot must then be poulticed two or three days, and brought to suppuration by basilicon, and attended to for some time. All the affections of the other toes are trifling. If the weather is cold, the foot should be kept by the fire in the day, and some warm bricks applied at night, till it suppurates well.

The following plan for a shoe would answer, and no doubt remove most cases, if applied in time. Let the sole be of cork, half an inch thick; these are always lined outside with a leather sole. A piece of the cork where the sore toes come must be cut out, of the shape of the toe, down to the leather sole, and a little wool put in, so that the toe may not be pressed in walking. The person must have a *pair* of cork shoes, to raise him to an equal height.

PARONYCHIA, FELON, OR WHITLOW.

Under those names, various degrees of the same disease are comprehended. It is needless, however, to make but two varieties: one where the matter soon forms near the surface, and is visible; the other, where the whole disease arises from an injury by puncture,

or bruise given to the muscles; or any of the soft component parts of the finger beneath the skin and cellular membrane: whether muscles, sinews, membranes, or periosteum. The first variety may happen to almost any subject; but the latter is nine times out of ten found in persons that work with their *hands*, and have a hard unyielding skin. And from this circumstance arises the magnitude of the disease: for when the soft injured parts swell, they are resisted by the unelastic skin, which acts as a violent pressure on the inferior parts; by which the circulation is obstructed at the spot, and a forced enlargement takes place, with the most excruciating pain. An extension of disease then takes place, and the whole hand and arm become affected with a topical fever and swelling. If this state is suffered to go on, matter forms within the finger, and often destroys the periosteum, and then the bone, before it can get through the thick skin: and in many instances a finger joint is lost. It is a dreadful disease when thus suffered to advance, especially upon a poor labourer. The remedy, however, is simple and sure, when performed in due time. In the most simple cases, when matter is only underneath the skin, a few poultices will mature the disease, so as to be ready for letting the matter out; which, with dressings of dry lint, is all that is wanted. But in the other case, where the injury is beneath the skin, a very different treatment is to be pursued: nature is not to be trusted; *matter must not be waited for*: an incision should be made the whole length of the swelling, and on the fleshy part; say, from one to two inches long, *entirely through the skin to the muscles*. The cut may be of such a depth as would pass through a dollar; it need not be deeper, as all compressions from the skin will then be removed. The relief obtained by this, would alone warrant the practice; but the safety ensured to the bone is still more important. The skin after incision recedes, and the swelled parts rise between. The object is then to hasten the suppuration on the exposed parts. After one or two poultices at

most, the proud flesh begins to form, and then the poultices must be laid aside, and the parts dressed with basilicon and lint, after sprinkling the surface of the proud flesh with fine red precipitate. In a day or two the proud flesh will suppurate out, and leave a simple ulcer. If the proud flesh forms rapidly, or has gotten so firm by neglect, as not to be overcome with the precipitate, it may be washed with a saturated solution of blue stone, and bound as tight as the patient can bear without pain: using some lint; and a flannel band as a roller. It will be well to use the blue vitriol, after a few applications of the red precipitate, for fear of salivating.* After a free suppuration, and especially after the proud flesh is thrown off; it will be necessary to bind up the parts pretty tight, (but not to produce pain) as before directed, to give them support, and to hinder matter from lodging in the interior of the ulcer. Lint will be all that is necessary for a dressing, till so far well as to require a little Turner's cerate. In bandaging, it is always necessary to give the most pressure on the radius or extremity, or ulcer; and to leave a place open for matter to escape. There have been cases, where a deep pain has been experienced apparently in the bone, without much swelling; these are more rare. And if an opening, such as recommended above, were ineffectual, it would then be best to make a small opening, with a lancet, through the muscles, down to the bone. The smallness of the swelling, slowness to suppurate, and great pain, must warrant our making this second incision: the exact pained spot should be aimed at. The practice of scalding the fingers is a very bad one, and so is squeezing; some frightful cases have ensued from such practices. For they can do no good, and are sure to do much harm. It is like beating a bruised limb to cure it. If a simple poultice of vinegar and bran, by relaxing the skin, will not give ease, it would then be better to try a blister on the back of the hand,

* If the proud flesh should not yield to the precipitate and blue vitriol, caustic or the knife may be used.

down to the inflamed finger; but when much swelling and pain take place, there is no relief but by the knife, as above directed. A practice of above thirty-five years, in the above way, has fully confirmed the author in the propriety of anticipating the formation of matter, by an early opening in all bad cases; so that he recommends it without any hesitation, as the only sure method of saving the bone, and making a speedy cure. The palm of the hand is subject to the same disease. As the incision is only made through the thick skin, the pain is not considerable. Should any person be so unfortunate as to delay till matter is formed, it must be reached with the knife or lancet, however deep, and that without delay; and the same dressings used as above directed. In all cases it may be better to lose the bone than to amputate; as the finger will be still useful.

There are certain painful diseases of the toes that do not tend to suppuration, but to a change of substance, and are insensible to the knife; they cut like cheese parings, or come off like folds of an onion. Cutting down to the bone, and keeping up a discharge, by blue vitriol and red pepper, is the best that can be done. They are mentioned by Richter. The disposition to heal up is so great, that a saturated solution of blue vitriol and lint can alone keep it open for two weeks together, when the knife becomes requisite again. The great toe is the usual place.

N. B. The author had a patient lately cured, by following the above practice for a month or two.

CRACKS IN THE JOINTS OF THE THUMB AND FINGERS.

Whatever will prevent a poor man or woman from maintaining their family, is worthy of consideration. These cracks are often deep and dry, affecting mostly the under part of the first joint of the thumb; they are little disposed to heal with salves, and are intolerably painful. They should be bound very tight, with a strip of flannel, about half an inch wide, passed several

times to give support, but not to stop the circulation; they will then heal without any application, and immediately cease to give pain.


CHILBLAINS.

These are the effects of frost, and are always troublesome in cold weather; in some instances making deep ulcers, and confining the patient. It is, however, a good deal constitutional; so much so, that some members of a family will (without any particular exposure, but merely on the natural changes of weather) become affected in their feet, hands, elbows, and nose; whilst others of the same house and family will brave the snows without scarcely feeling the effects. The worst itching is mostly confined to the toes, top of the foot, and the heels. The heels will swell into knots, and sometimes ulcerate in deep holes. The top of the foot will become spotted, and the skin turn of a dark red, and die, leaving a small shallow ulcer, difficult to heal. At every change of weather, the itching and burning is intolerable; especially at night, when the warmth of the bed augments the inflammation.

MANAGEMENT.—At or before the first cold changes of weather, persons subject to chilblains should increase the thickness of their stockings and shoes. Tissot recommends shamoy leather immediately to the feet. But the better plan would be to put on thin silk stockings, or thread next the skin, and then worsted over the silk, and to have boots that would lace up tight on the leg, and thus exclude a great deal of cold air from the heels. All sudden changes must be avoided: such as running out into the snow, and then to the fire. It is said, that in the north of Europe, when the peasants are about to expose themselves to the snow for a day, that they either rub their feet with spirits of turpentine, or wrap them up in a kind of soft, flat-leaved grass, common to that country, (Russia.) A uniform dry and cool temperature is the best security.

CURE.—For the mere itching, wetting them with

water quite cold, and then putting on some lead water, will give a temporary relief. When they ulcerate in a superficial way, some diluted Turlington's balsam may be applied on lint; or after washing the sores with some spirit, and then dropping in the Turlington, the places may be covered with goldbeater's skin, or with some of the membranes taken from hog's fat. A mixture of honey and rum is sometimes used as an application. Diluted spirit of sea salt is sometimes applied; as also washes of lead water, alum water, and of brine. No kind of salves will answer. A little fine galls and chalk, or a little of the flowers of zinc, sprinkled on the sores, are good applications. But when the ulcers become deep, nothing seems to answer so well as poulticing them, especially with roasted turnips, and then applying Turlington's balsam and lint.

 Fifteen or twenty drops of spirit of sea salt may be put to a wine-glass full of spirit and water for a wash.

There can be no doubt, but what the gum elastic overshoes and boots, will become a valuable article to those affected with chilblains.

FROST BITTEN.

Partial or general exposures to a much greater degree of cold than what a person is used to, will soon bring on more or less disease: such as pain and inflammation, mostly of the erysipelas kind. But when the person returns quickly to a comfortable heat, or to a much greater degree of heat, the part so exposed to heat is destroyed by a kind of mortification.

A person (lately from a foreign country) finding his new shoes to pinch him, took one of them off, and walked five miles on a frozen turnpike; when he got home he felt his foot cold, and called for a bucket of *warm* water, into which he plunged it. In a few hours it puffed up, became dark coloured and painful. He was instantly put on a course of bark and wine, and the foot poulticed with camomile stewed in spirit,

and after a very few days the whole skin of the foot separated like a shoe, and finally came off, with three of his toes. The large ulcerous surface was kept continually covered with a thick coat of powdered camomile. The bark and wine was continued day and night; with opiates at night, when in pain: by this plan he got well.

The above case will serve for every purpose, viz. cause, symptoms, and cure; and will show the excellency of the topical applications made to it. Had this man put his foot into water of about thirty-five to forty degrees of heat; or what would be better, into cold sand or meal, and removed it by degrees, no such serious event would have ensued. Dry cold is preferable to wet, and in this country it will be found that snow is rather too cold an application. Where actual freezing of the flesh has taken place, (as in Russia) snow may do best: but friction with any rough article is always improper. Persons arriving off our coasts from the West Indies, during winter, are very apt to be frosted; and they cannot take too much care to prevent that and other affections from cold. Shamoy shirts and drawers, with flannels under them, are excellent: the close texture of the leather prevents the air from getting through to the skin, which it will readily do through coarse cloths, when the wind is strong. On the feet and hands, shamoy leather next the skin, is far the warmest, for a very simple reason: the person will find that when the leather is covered by worsted, he has two warm coverings; but when the leather is outside, it will be cold, and he will have but one warm covering. It is a curious circumstance, that limbs amputated after frost, seldom bleed from the arteries.

The author is anxious to impress on his readers the superior excellency of camomile over all other topical applications in mortifications. In Sir John Pringle's experiments it holds a high rank, but in actual practice it will take the first place. An opportunity of seeing it tested, in the worst cases, leaves no doubt.

VENEREAL DISEASE.

As many country gentlemen, with a large number of hands, have frequently need of information on this disease; and those country practitioners who have not resided in cities, where the disease abounds, are often at a loss; the author concluded to add this disease as the last one, so that those who have no need may cut it out of the book the more readily. The different forms of this disease most usual, will be treated of separately.

GONORRHOEA,

Is a discharge from the urethra, of white, or yellow, or greenish matter, or mucous, succeeding in two to fourteen days after contact with some other person infected with venereal disease. Some irritation precedes the discharge, and some difficulty in making urine: these symptoms, and circumstances known to the patient, are sufficient to characterize the disease.

CURE.—The patient must instantly abandon (besides his evil practices) all spirituous liquors, and use a vegetable diet, and but little exercise. He ought to have plenty of barley water, or elm tea, and acid drinks. He should take a dose of salts immediately, and repeat it the third day. In the meantime a little milk and water (not cold) may be injected into the urethra, three or four times a day, and the organ (in every accessible part) washed morning and night, with tepid soap and water. After the second purge has done operating, the following injection may be used instead of the milk and water. Take of white vitriol, from five to eight grains; sugar of lead, from five to eight grains; water, three ounces; opium rubbed to the finest paste, with some of the injection, three grains; add all together, and thicken it with two drachms of gum arabic. If too sharp, dilute it with water. There will be a copious sediment, and the mixture is not very chemical; but it is one of the best,

perhaps, that was ever used: seldom requiring more than the second vial, of three ounces, to make a cure in a new and simple case. The lowest portion, say five grains to the ounce, may be first used: and then, if need, the stronger of eight grains. Should there be any delay, and the discharge not change from green to light yellow, some mercury should be given internally; or if symptoms of inflammation, more doses of salts. A pill of two grains of calomel may be given every night, for five or six nights, and then stopped. But if, on the contrary, there is an apparent debility, and the discharge is of a good colour, we may use the balsam of copaiva, in doses of ten and then fifteen or twenty drops, two and three times a day. There is no better (*i. e.* more agreeable) way, than to warm it, and drop it on a lump of porous loaf sugar, and when soaked in, to roll the sugar in half a teaspoonful of spirit of lavender compound.

Mr. Falek, a British surgeon, who prescribed much, and wrote a book on the disease, never used but one prescription for gonorrhoea; and that was fifteen or twenty grains of calomel, rubbed up with two or three ounces of mucilage, for an injection. And if there is any objection to the internal use of mercury, this prescription may succeed the lead and zinc injections.

The disorder will sometimes end in a gleet, or white mucous discharge. Bark and steel, with topical applications of cold water, will generally remove the gleet. The balsam copaiva may be used also for it, without relinquishing the bark and steel; or it may be tried first.

PHIMOSIS AND PARAPHIMOSIS.

When the inflammation in a gonorrhoea has been very great, and not attended to in time, the prepuce or foreskin, will sometimes inflame, and swell to a considerable extent. When it is so thickened that it cannot retract, it is called a phimosis; and when it has swelled behind the glands, so as not to come for-

ward, it is called paraphymosis. Poultices of bread and milk, or bread and lead water, in the proportion of six to ten grains of sugar of lead to an ounce of water, must be laid over the parts; salts should be used daily; and if these do not speedily succeed, the patient should be freely bled. Suppuration *must be prevented*. Every effort should be made to get the skin back in a phymosis, that the parts may be cleansed, and to see that there is no chancre forming. If none of the above means are likely to succeed, one of the following operations must be performed. If the foreskin is very long, it may be circumcised; if not, the best way is to pass a thin, narrow, blunt-pointed knife, flatways, between the skin and glands, and make an incision outwards, so that the skin may be readily drawn back, and the parts cleansed, and then poulticed. It will be well for the patient to take a grain of calomel, morning and night, (though many surgeons think that no other disease of the venereal kind will ensue) for a week.

Some washes, such as the injection for gonorrhoea, may be thrown up between the skin and glands, before it gets too tight, by a syringe, with a long delicate pipe: or what might do better, if there is a suspicion of a chancre, an injection of one grain of corrosive sublimate to one ounce of water. But nothing less than an exposure of the parts will do in most cases. The paraphymosis will scarcely want an incision; the other remedies may be used.

CHORDEE.

This affection depends on inattention to gonorrhoea. It consists in a contraction of the frænum downwards, that gives great pain in an erection. The cure consists in rubbing the parts with mercurial ointment, and a tepid bath, with sponges or cloths. But opiates are often necessary; both general and topical. A stout dose of laudanum may be taken at bed-time, and rags dipped in laudanum may be applied, through the day and night, to the under part. and all along the organ, shift-

ing them for others, as fast as they get warm. The same abstemiousness and reduction by medicine, as in gonorrhoea, must be attended to. Rubbing on some mercurial ointment may be both useful and prudent.

SWELLED TESTICLES.

This is caused by injections of too rough, or astringent quality; by blows, cold, too much exercise, &c.; when there has been a previous discharge, it stops when the swelling takes place. There is no need of much description; the parts are excessively painful, producing fever, and sometimes vomiting; all following a venereal affection, or an improper connection. The patient will, of course, have to lay on a bed; and his diet may be only vegetable and thin drinks. He should be freely bled and purged speedily; and this repeated, if needful. A cold poultice of vinegar and bran, or of lead water and crumb of bread, must be constantly used. Blisters may be put on each thigh, half way down, and warm injections of milk and water, or sweet oil, with a little calomel in it, may be used to restore the discharge from the urethra. When there has been no spontaneous vomiting, an emetic of ipecacuana after bleeding and purging, will often be useful. But when there is any delay after the above course of antiphlogistics, mercury must be speedily introduced; some may be rubbed on the naked blisters, and two grains, with a little opium and ipecacuana, (say half a grain of opium, one grain of ipecacuana, and two of calomel) may be given twice a day. Portions of nitre and antimony, (see fever powders) should be given while the febrile symptoms are present.

Some physicians recommend (in delays) tepid baths of vinegar and water. It is a most serious disease, and no pains should be spared to hinder it ending in either suppuration or mortification, as it has done, when neglected.

CHANCRE,

Is an ulcer, at first quite small, affecting sometimes the gland; at others it locates where the prepuce joins the flesh internally. The edges are elevated and of an ash colour, or whitish; though at times there is no elevation; the bottom of the sore is ragged, or uneven, like a cancer. It is supposed to be a higher degree of venereal disease; and the general system much in danger from it, if neglected. The sore is to be washed with something of a caustic nature; for this purpose, four grains of corrosive sublimate may be dissolved in one ounce of weak brine, and a little applied on lint to the sore; keeping the parts very clean with soap and water. Three to six grains of lunar caustic to the ounce of water, is sometimes used instead of the mercury. Red precipitate, ground up with ten times its bulk of nut galls, is a good application. These applications are to be made often: say three times a day at least. When they are very painful, a common poultice of bread and milk may be applied, and an opiate taken at night.

It will be quite prudent to take some of the corrosive sublimate in pills, or tincture: say one-eighth of a grain twice a day, to prevent the system from being infected.

BUBO,

Is a swelling of a gland in the groin, in consequence of the access of venereal poison to it from chancres, or virulent ulcers, and perhaps virulent gonorrhoea. The swelling is small at first, but increases in most cases to a tumour as big as a small watch; sometimes both groins are affected. In most cases they are extremely painful, being highly inflamed; they are at other times more indolent.

They will, in many cases, terminate in suppuration, notwithstanding medical aid. They are to be treated at first with cold poultices, made with lead water, as also by general bleeding, by leeching, by purging, low diet, rest on the bed, and mercurial frictions. When

this will not do, they may be forwarded to suppuration by warm poultices and bathing, and then opened. At times they heal kindly, but at others they form large leathery edges, that must be pared down with the knife, or eaten down with caustic; and the whole sore dressed with precipitate ointment, in the proportion of one drachm to one ounce of basilicon. In the meantime it will be prudent to take, once or twice a day, one-eighth of a grain of corrosive sublimate, in pills or tincture. In great pain, an opium pill of two grains may be taken at bed-time.

After the bubo has opened, the diet may be as usual; but no spirituous liquors must be allowed. When the sore is dressed with the red precipitate for any length of time, one dose of corrosive sublimate a day is sufficient; as a salivation is rather to be avoided.

VENEREAL ULCERS.

These are the consequence of the whole system being impregnated with the venereal poison. Those which affect the glands of the throat, palate, and parts about the nose, are truly serious affections. They are to be treated with the corrosive sublimate internally, in the same quantity as for chancres and bubos, and also by a wash of the same article, in the proportion of one grain to an ounce of weak brine. Strong decoctions of bark are also to be used, and the throat wrapped up, and all exposures to cold avoided. Bark and steel may also be taken inwardly.

When the ulcers affect the legs, the same plan may be used, and the sores dressed with powdered galls, in the proportion of one drachm to an ounce of powdered camomile; having first washed the ulcer with a lotion of corrosive sublimate, in proportion of three or four grains to an ounce of brine. A bandage may be used over the whole limb. The Turlington's balsam makes a good dressing; when the ulcer is very foul, it may be filled up with lint.


NOCTURNAL PAINS,

Are the result of old venereal taints. They are to be treated with the corrosive sublimate tincture, as before mentioned; as also with teas, compounded of gauliacum, sarsaparilla, and sassafras; and with opiates at night; taking care to remove the costiveness that the opium occasions. Dr. Paschalis of New York, and others, recommend as a specific the extract or syrup of salza.

NODES ON THE SHINS AND HEAD.

These are other fruits of a full blown and old syphilis: they are to be treated with cupping or leeching, rubbing mercurial ointment on the lumps, and taking the mercurial tincture at night. When mercury has been taken to some extent, we may lay it aside for a while, and use thirty drops of sweet spirit of nitre, with as much acid of sea salt, to a pint of water, taking a wine-glassful every hour or two. And this may be also used, more acidulated, as a wash to the throat, where that is affected. This acid is applicable to all cases where the general system is affected. The use of it originated in India, and as it suits so well in that relaxing climate, it may make a good change about with mercury, in all cases attended with much relaxation.

VENEREAL WARTS,

May be taken off with ligatures, or touched with lunar caustic. There are an immense number of other forms affecting the bladder, urethra, skull, skin, lungs, &c., that will require the attention of the surgeon, and would be too voluminous for the bounds of this book; they must therefore be omitted.  See the apothecarium, for corrosive sublimate pills and tincture; also, for the decoction of woods.



APOTHECARIUM.

ACIDS.

Elixir of Vitriol.—Re. oil of vitriol, one ounce and a half; common spirit, half a pint; drop in the vitriol by degrees, and add in powder ginger, two drachms, cinnamon, three drachms. Digest for a week, or let it stand in a sun heat, one month. It may be coloured with cochineal or saunders. From fifteen to twenty drops in an ounce or more of water, is a dose; which may be repeated every two or three hours. It is used to brace a weak stomach, and joined with opiates to check vomiting in cholera morbus. It is also used in all low or petechial fevers, and in malignant small pox, &c.

Oil of Vitriol dilute, (extempore.)—Re. mint leaves, slippery elm bark, each a teacupful; boiling water, one pint; draw them till it becomes a thin mucilage, and pour off six ounces: to which add twelve drops of oil of vitriol. Three drachms of gum arabic will do as well as the elm bark. One wine-glassful every two or three hours. It is a very pleasant way to use vitriol when wanted for immediate use. To restrain vomiting, it may be used, for a few times, every twenty minutes.

Tartaric Acid.—Twenty grains will saturate twenty-two grains of soda, or of salt of tartar. It may be used for all the purposes of lemon juice, in making effervescent draughts and drinks. One table spoonful of water is sufficient to dissolve either the acid or alkali. See sedlitz powders.

Ætherial Mixture.—Re. ether, brandy, each one ounce; oil of cinnamon, twenty drops; laudanum, one drachm (by measure.) Dissolve the oil of cinnamon in the pure ether, and add the other articles.

☞ To digest, means to apply a heat, a little more than what hatches an egg, for a time, by warm sand, on a stove, or by any other mode. Most tinctures require a week of such temperature, or a month in the sunshine.

One ounce of oil of vitriol, by measure, is about two by weight.

All the weights in this apothecarium, from a pound to half an ounce, are grocer's, i. e. sixteen ounces to the pound; but the drachms are gold weights, of sixty grains to the drachm, and eight drachms to the ounce. There is some confusion in this, owing to our weights: for a grocer's ounce is 437 1-2 grains, and the goldsmith's 480; hence there is more in two drachms than in a quarter of an ounce. Fluids are sixteen ounces to the pint or pound.

☞ See the note at the end of the relative table of doses, page 443

One teaspoonful in an ounce of water, may be used every three or four hours, or oftener, in colics, sick stomach, vomiting, or nervous affections; it is an excellent family article, and quite pleasant. It may be given mixed with castor oil in an urgent case of colic, and repeated in an hour.

Antipertussis, (i. e. medicine against hooping cough.)--Tincture of bark, one ounce; paregoric, half an ounce; tincture of cantharides, forty drops. About twenty drops, in a teaspoonful of water, may be used every three hours, for children of four to seven years of age. It must be stopped when it produces strangury; and, therefore, is unsuitable to children younger than four years. It is well suited to stop the cough when it continues from habit more than inflammation; and, of course, must not be given in the first stages. It was a great favourite with Dr. Letsom, and was much used by the late Dr. James Murray, of Annapolis; this gentleman used a much larger portion of the tincture of bark, say three ounces.

ALKALI.--Potash and soda are alkalis.--Twenty grains of either in their mild state (subcarbonate) may be saturated with a tablespoonful of lemon juice, or with twenty grains or a little less of tartaric acid. These alkalies are used alone, or combined with acids, for gravel; and in an effervescent state with acids, for fevers; and especially for an irritable stomach. They may be given every hour in fevers; and every eight hours, largely diluted, for gravel. Twenty grains may be used for a dose. The soda is an article in sedlitz powders. See gravel and sedlitz powders.

Ammoniac, (volatile alkaline salt.)--Three to five grains made into a pill, with the resinous paste, (see pills,) may be given to stimulate a languid stomach, every three hours, particularly where the patient objects to the liquid forms. The spirit of hartshorn, or of sal ammoniac, as it is called, is the same article with water; (more or less caustic.) In its mildest state (subcarbonated) a teaspoonful is given in a tablespoonful of water to persons fainting, and sometimes for an injection in a long continued fainting. In its more caustic state, it is used to make liniments; which see.

ALOES, (socotrine.)--The best is of a raisin colour, or of a shining black, free from any rancid smell; breaking smooth and easily. It is the basis of most purging pills, and sits easy on the stomach; from which cause it is a great dependance in costiveness, with a feeble stomach.

Aloes Pills, with Soap.--Re. aloes, in fine powder, twelve grains; castile soap, an equal bulk. Beat them into a mass, and make ten pills. The soap may require one or two drops of water, and not more, if dry, to make up the mass. Three or four of them are a dose.

Aloes Pills, with Salt of Steel.--Re. to the above prescription of aloes and soap, add six grains of dry salt of steel, incorporating it first with the aloes and then with the soap: make twelve pills. These are a very good aperient in female obstructions; taking daily just as much as will act on the bowels.

Aloes Pills, with Assafætida.--Re. aloes and assafætida, each twenty grains; soap a sufficiency to form a mass. Make them into pills of the size of a stout dried green pea. Three or more of these

are a dose; they are very useful for hypochondriac and dyspeptic patients, with flatulent bowels.

Aloes Pills, with Myrrh and Steel.—Aloes powder, two drachms; myrrh, in powder, one drachm; dry salt of steel, thirty grains; mix the ingredients well, and unite them with a little liquorice paste, made thin, or extract of gentian. These may be formed into pills of the common size. Two or three are a dose. They are in great reputation in obstructed menses.

Aloes Pills, with Calomel.—Re. aloes, twenty grains; calomel, ten grains. Make twelve pills, with a little essence of mint. One of these every quarter of an hour in obstinate costiveness, when common purges are rejected, is the main dependance, after a full and long bathing, in warm water; or after sponging the abdomen. If they salivate they will be the more sure. All drinks are to be avoided whilst taking the pills.

Aloes Powders, or Hiera Picra of old authors.—Re. aloes, in powder, one ounce; canella alba, one drachm and a half: beat them fine, and mix them. Fifteen grains, in molasses, is a stimulating purge in sluggish bowels. It is suited, like many of the other aloetics, to female cases; but is entirely unfit for persons subject to the piles, or to strangury.

Aloes Powder, with Iron and Myrrh.—Re. aloes and myrrh, each one ounce, in powder; rust of iron, two ounces; mix. Ten grains are a dose, in syrup. It has a preference where the bowels do not want a constant aperient. There is no better medicine for female debility, depending on, or connected with, a deficient catamenia. It may be used morning and night, in some syrup.

Aloes Tincture.—Re. aloes, in coarse powder, one ounce and a half; liquorice paste, two ounces; wine, one pint and a half. Let them stand in a warm place a week; shaking the ingredients often. A tablespoonful is a dose. This is a good aloetic to take with the tincture of steel in spirit of salt. Ten to fifteen drops of the latter may be added. They will sometimes act freely on the bowels.

Aloes Elixir, or Elixir of Propriety.—Re. aloes, three-quarters of an ounce; myrrh, one ounce; brandy, twelve ounces; anniseed cordial, four ounces; English saffron, one drachm. Digest for a week, or let it stand a month. A desert spoonful or more, may be used morning and evening. This is the ladies' medicine: being the most elegant of all the aloetics; and used like most of the others for obstructions and retensions. When anniseed cordial is not at hand, a drachm of the oil dissolved in four ounces of strong brandy will do. There is a waste of saffron, (which is a dear article) in the dispensary receipt.

Alum.—From five to fifteen grains may be given every two hours, in jelly, for an hæmorrhage; or five grains, every four hours, for a diarrhoea.

Alum Candy—To about a wine-glassful of family candy, (made by boiling brown sugar and water to a firm consistence) add one level teaspoonful of fine alum just before taking it off the fire, and stir it well; then pour it out, on a buttered plate, and break it into pieces. Children will suck this when gargles cannot be used. It will be found very excellent in a sore, or ulcerated throat, and will make a good suppository for piles.

Alum Injection.—Re. alum, fifty grains; water, one pint. This is the proper strength to inject into the vagina in excessive discharges. From four ounces to a pint may be used, according to the apparatus. The French cloth funnel is the best machine, and then the whole will be requisite at once. This may be repeated frequently, when needed.

Alum Whey.—See the nurses' department.

Alum Burned.—Put some alum on a hot shovel, over coals, and boil it as long as it will rise up; cool and powder it. This is used as one of the most gentle escharotics to eat down proud flesh. It must be sprinkled on, and covered with lint bound on; repeating it morning and night, as long as needed.

Ammoniac, Gum, (the solution.)—Re. pure gum ammoniac, two drachms; water, eight ounces; boil gently, and strain. A sweet oil flask or a pipkin will be best to boil it in. One tablespoonful every two or three hours in old coughs. Some additions are usual. The best is a teaspoonful of good syrup of squills to each dose. Cold infusions may be made by triturating the same quantities of gum and water; but it is troublesome, and has contributed on that account to a great neglect of so good an article.

Gum Ammoniac Powder.—Re. gum ammoniac, in fine powder, ten grains; pulvis antimonialis, nitre, each four grains. One of these in syrup, morning, noon, and evening, when the lungs are much oppressed by a cold phlegm. They are handy for travellers.

ANTIMONIALS.—**Tartar Emetic.**—Four grains dissolved in eight tablespoonsful of boiling water, may be used; taking one tablespoonful every ten minutes, till it operates. When operating more than wanted, a little salt broth may be used to turn it on the bowels. It is a great medicine in intermittents, when the patient has had a good constitution, and not too plethoric. It is the main dependance in croup; but must not be delayed too long. It may then be given to children in the above doses. In some instances, hearty children have had to take, in extreme cases of croup, ten to twelve grains, in four to six hours.

Tartar Ointment.—From one to two drachms may be mixed with one ounce of lard. It may be rubbed on, or laid on as a plaster. It is used on the breast, in pains of the breast; and along the spine, (i. e. each side of it) for St. Vitus' Dance.

Antimonial Powder; the pulvis antimonialis, P. L.—This is about the same as the famous James's powder. From four to five grains are a dose. Twenty grains may be used in the day, taken in jelly. It is more disposed to act on the bowels than the stomach; that is, when it evacuates. It is one of the best fever powders. In dysentery, with fever, it should never be neglected.

Antimonial Wine, (tartarized.)—Re. tartar emetic, forty grains; boiling water, two ounces; dissolve the tartar, and add eight ounces of Lisbon wine; making half a grain to a drachm, or eighty-four drops. See the tables, page 413. From ten to twenty drops, every two hours, are a dose for children from four to eight years of age. The latter quantity will generally puke or purge.

Antimonial Wine of Huxham.—Re. levigated glass of antimony, one ounce; spirit of wine, two ounces; Lisbon wine, eight ounces; let them stand two months, shaking the bottle every week, and then

decant a little, and filter it through blotting paper. The same quantities as of the tartarized may be given. It will be more apt to stay on the stomach and sweat. All the objections against this are frivolous: for in one hundred samples of sound Lisbon wine, the variation of acid would not make a difference of more than one drop in an hundred. Moreover, there is some good reasons for believing that even sour wine would make no perceptible difference. This experiment has been made. The spirit of wine may be substituted with fourth proof whiskey. The action of the wine on the antimony weakens the wine, and makes it cloudy. It therefore becomes necessary to strengthen it, to make it clear.

Angustura Bark, (cusparia.)—This may be used as the Peruvian bark, when there is an objection to this latter; but it is rather to be considered as a first rate bitter.

Angustura Infusion.—Re. powder of angustura, one ounce; of ginger, one drachm; pour on these a tablespoonful of good brandy, and triturate it half an hour in a marble mortar; then pour on it eight ounces of boiling water, and cover it. One tablespoonful of the clear decanted liquor may be used every hour, in a feeble stomach; especially in gouty cases. It is a nice preparation.

ARSENIC.—Fowler's Solution.—Re. arsenic, in fine powder, and potash, each sixty-four grains; water, one pint; boil the ingredients in an oil flask or china cup, with four ounces of water, till dissolved; and then add the residue. Five drops, in a tablespoonful of mint water, may be used six times a day; which will be one-fourth of a grain. It is a great remedy in intermittents. It must be used with the same rules as the Peruvian bark. When given without proper dilution, it produces swelling of the face, &c. Forty times the quantity of water is the proper dilution, for to make a wash for a lady's face. It is so used for chronic pimples as a cosmetic, and with success.

Aromatic Tincture.—Re. cinnamon and grains of paradise, each one ounce, in powder; cloves, three-fourths of an ounce, in powder; oil of lavender, ten drops; dissolve the oil in a little spirit of wine, and add one pint of very strong brandy. Digest for a week. It may be coloured with cochineal. Thirty drops on a lump of sugar, is a grateful stimulus to a weak stomach. It is a very handsome addition to watery bitters, and is peculiarly useful to add to bark, in quartans. It may be used for flatulent colics.

Assafœtida Pills.—Re. assafœtida, forty-eight grains; oil of lavender, three drops; make them up with syrup, if needed, (as the assafœtida is sometimes hard and friable, and sometimes soft enough to beat up) into twenty-four pills. About three are a dose. They are used for nervous and hypochondriacal patients, who may repeat them at pleasure.

Assafœtida Tincture.—Re. assafœtida, in coarse powder, one ounce; ether, one ounce; oil of lavender, ten drops; dissolve the oil in the ether, and add the whole ingredients to half a pint of brandy. Digest a week, or let it stand a month in a warm place. One teaspoonful in water, every four hours. It acts more expeditiously than the pills, and is very useful in hysteric cases, and in colicky patients with dejection of spirits.

Astringent Tincture.—Re. tincture of kino, one ounce; laudanum, one drachm, (by measure;) elixir of vitriol, two drachms; water, one ounce and a half. Two teaspoonsful, in a little water, so as to feel the roughness of the vitriol on the tongue, may be used every two or three hours in hæmorrhages of females.

Astringent Mixture of Dr. Thatcher.—Re. blue vitriol, three grains; water, two ounces; elixir of vitriol, twenty drops. Three teaspoonsful, every two hours, in sanguineous discharges from the nose, lungs, or other parts.

Astringent Powder.—Re. alum, four ounces; gum kino, one ounce; galls, half an ounce, all in fine powder; these are to be well mixed. They are used for small troublesome bleedings; sprinkled on the parts frequently, and pressed with lint.

BALSAM COPAIVA.

From fifteen to twenty-five drops are a dose, which may be used three times a day. It is used in piles after the inflammatory stage has receded; as also in gleet, and pains of the loins, from weakness.

By warming it, and thinning it with five drops of spirit of turpentine to each dose; it may then be absorbed into a lump of porous sugar, and swallowed. It is also used for injections: see clysters.

Bark, Peruvian.—The best now in use is the yellow Lima bark; when good, it imparts a very astringent and bitter taste speedily to boiling water: and that which imparts the above qualities the most effectually and expeditiously, is always the best. A little more than a level teaspoonful is a dose; which may be taken every two hours or oftener, in an intermission of fever. See intermittents. Wine, milk, or scalding water, are used to mix it up, according to circumstances. It is a great tonic in all cases of debility; and is used freely, after gout and rheumatism have debilitated the system. It is used topically and generally to arrest a gangrene. In scorbutic gums it is a very excellent topical application, and also for thrush in children.

Bark Decoction.—Re. Lima bark, in fine powder, two ounces; boiling water, one quart; boil in a covered stone pot for three-quarters of an hour, and then take off the cover and boil it till about one pint remains; which must be strained off as soon as it has settled, but whilst it is hot. One wine-glassful, is a dose, every two hours. It should be stirred up every time a dose is poured off, as some of the rich extract will settle when cold. This preparation is often effectual when the bark in substance will not answer: such as where there are some remains of inflammation. If not well made, it is a poor preparation.

Bark Levigated.—Re. best Lima bark, in fine powder, four ounces; put it into a levigating mortar, and rub it for half an hour, making it into a paste: first with a little brandy, and then with a little water, as it dries by rubbing. When done, put it into a pot and cover it close. This should be made for the occasion, as it will not keep long. In quotidians, where large doses are requisite to get much bark in a short time, this preparation is useful. It may be used in larger doses than the common powder, and it has some advantages from acting more expeditiously on the stomach.

Bark, the compound Tincture.—Re. Bark, one ounce; Gentian,

half an ounce; thin dry orange peel, two drachms; all in powder. Let these ingredients be digested a week, with four ounces of fine brandy, and then add one bottle of Lisbon wine, and continue the digestion a few days. This has been used rather as a bitter; but it is far preferable to Haxham's: being very agreeable; and from the wine used as the chief menstruum, as much *bark* can be taken as in Haxham's. One small wine glass full, three times a day, may be used after laying aside the bark in substance, in intermittents. It is also applicable to any general debility.

Bark, simple Tincture.—Re. Bark, one ounce and a half; levigate it in a mortar,* with some of the wine, and then add a bottle of best port wine. Let them stand in a warm place, three or four days. A wine glass full may be used three or six times a day, when the stomach will not receive the powder, or decoction; by levigating, it will be fit to use in a much shorter time.


Bark, Infusion.—Re. Bark, one ounce; levigate it with a little water, and then pour on it a pint of lime water, and continue the levigation. Let it settle, and decant it into a bottle, and cork it up. In some acid, gouty stomachs, this is a very proper article to begin with. Stronger preparations may then be used in preference.


Baccharis Halimifolia—Called Ploughman's Spikenard, in England; Wild Sage, in North Carolina, and Mandrakes, on the Chesapeake.—This shrub grows from six to eight feet high, on the very margin of the river, where the ground is low and swampy. The tide, when high, generally overflows the roots of it. It has the aspect of a little willow, though it grows in clusters, rather than solitary. It flowers in September, and when the flower petals drop off, the pappus remains; giving it all the appearance (at a distance,) of being in full bloom. The leaves are three-fourths of an inch long, thick, and somewhat oval-shaped, toothed above, and disposed to the south to be evergreen. The leaves extend on the flower panicle, which has many branches, and every bunch of flowers has its proper footstalk. It is quite a handsome shrub, and may be easily transplanted into up grounds: but its great abundance can never be subdued.—Half an ounce (or a tea cup full,) of the dried leaves, makes a small pot of tea. It should be well drawn; one wine glass full, every two hours, is a dose which may be given as a tonic, after inflammatory fevers, especially rheumatism, or gout. It will have a great effect, when bark cannot be given. It is a pleasant bitter, with a little of the turpentine flavour; and in the author's opinion, is the next best medicinal article, to the snake roots, that America produces.

Bitters, Gentian.—Re. Gentian, one ounce; orange peel, half an ounce; canella alba, two drachms; let them be pounded, and add brandy, four ounces; Lisbon wine, one pint. Digest a week. One tablespoonful, in debility of the stomach, every morning and noon, or oftener.

Bitters of Willow.—Re. Bark taken from the smooth limbs of golden willow, dried and pounded, four ounces; calamus, dried and

* A mortar to levigate, must have a long handle to work in a hole above, so that the operator can turn the head round the mortar rapidly.

pounded, one ounce; socotrine aloes in course powder, half an ounce; whiskey, three quarts; let them stand in the corner of the chimney in a jug, with a paper stopper, for a week. One wine glass full morning and noon, to labourers in flat, swampy grounds, will prevent intermittents, if they keep from getting wet, and from drunkenness.  The golden willow, is the large house willow, with strait rising branches, and spear shaped leaves, about two inches long, with very fine teeth on the edges.

Blistering Plaister.—Re. Wax, twelve ounces; lard, seven ounces; rosin, four ounces; melt them, and when about to grow cool, stir in fourteen ounces of very fine flies, and keep it on warm ashes, till the flies are thoroughly incorporated by stirring. It should then be removed, as heat is very injurious to flies. This composition spreads well, merely by warming it a very little, in winter.  This is the only way flies should be applied to the skin.

Borax, (the Wash.)—Re. Borax, a level teaspoonful; lemon juice, one wine-glass full; this is used to dry up sores about the face, that have a cancerous appearance. Borax is also used for the thrush; for which purpose, the above quantity of borax may be mixed with a tablespoonful of honey, or molasses, and a little put on the child's tongue, three or four times a day.

Burgundy Pitch Plaister.—Re. Burgundy pitch, two ounces; tar-plaister, half an ounce; melt the pitch first, and then add the tar-plaister, to toughen it for spreading. It is also spread unmixed. Keep it on hot ashes, just barely melted, and spread with a warm spatula, on leather, or glazed linen. Pitch plaisters are used for pains in the breast, and back, and by giving some stimulus, and exciting a perspiration, they often do good. They are not tenacious enough to give any support to the loins.

CALOMEL.

Ten grains in syrup is the quantity used for a purge, though it is seldom used alone, for if it fails to purge, it may salivate. A portion of jalap, or rhubarb, is usually added.

Calomel Ointment.—Re. calomel, one drachm; sugar of lead, in finest powder, ten grains; sweet oil, half an ounce. This is used to take out specks from the eyes. It is to be applied with a camel's hair pencil, to the speck, morning and night. It is very effectual and safe. It was the medicine used by a Mr. Keiselbaugh, a German oculist, who travelled in this country about the year 1793.—On leaving Baltimore, he presented it to the late Dr. Goodwin.

Calomel Pills.—Re. calomel, twenty-four grains; manna, twelve grains; make twelve pills; or instead of manna, make them with twelve grains of finely powdered gum arabic, adding a little water, and flour, if needed. These become very hard, and may be used by travellers. One of these morning and night, especially if prevented by four drops of laudanum to each dose, from acting on the bowels, will generally salivate by the time all are taken.

Camphor.—Camphor may be dissolved in ether, spirit of wine, or strong rum; as also may be triturated with milk, or cream. The former is used for strains, head ache, &c. and the latter is best for internal use. The dose is about four or five grains, two or three times a day,

in low fevers; and especially in small pox, when it has that turn. It has also been used as a sudorific, in rheumatism, joined with other articles, such as snake-root, or ipecacuana. It is not an agreeable article on the stomach, and perhaps had better be confined to the surface, in domestic practice. It had, however, much repute in epidemic cholera.

Cantharides, the Tincture.—Re. spirit, one pint; cantharides, one drachm, in powder. Digest for a week, and filter through paper. From ten to twenty drops, three times a day, are used pretty safely. They are mostly confined in use to a sluggishness in the urinary organs; as also in compounds for whooping-cough. See Letsom's Anti-pertussis.

Castor Oil.—One ounce and a half, may be taken every four hours, till a sufficient operation ensues. It is safe and effectual; and used for colic, painter's colic, pregnancy, &c. Infants may use it safely in doses of a teaspoonful. It should be made thin for them, by a moderate warming.*

Cerate, (Turner's).—Re. wax, half a pound; lard, four pounds; calamine stone, rubbed and sifted, one pound; melt the wax and lard, and sift in the calamine, just as it begins to cool, keeping it on hot ashes, till the calamine is thoroughly incorporated by stirring. This is called also cerate of calamine, and is in universal use, to dress small sores, and the edges of deep ulcers. It is to be spread on narrow slips, and laid on the edges of these last; but on superficial sores, it is laid all over.

Cerate of Spermaceti—Re. white wax, three ounces; spermaceti, one ounce; oil, six ounces; melt. This may be made of a better consistence for spreading, by using part lard, and part oil.

Cerate, (Saturnine).—Re. litharge plaister, spermaceti, each two ounces; oil, one to two ounces; melt the litharge and spermaceti, with a spoonful of water, and then add the oil. These two cerates are used for excoriations, and small chaps of the skin.

Chalk.—When properly prepared, by washing, levigating, and exposing it in thin cakes to the air, becomes soft, bland, and well tasted. It is used in doses of five to ten grains, occasionally, to correct acid on the stomach, and looseness of the bowels.

No. 1. *Chalk Julep.*—Re. prepared chalk, one drachm; soda, twenty grains; infusion of fresh spear mint, six ounces; loaf sugar sufficient to sweeten it. Two teaspoonsful may be given for a dose, and repeated three, or four times a day, to children with sour stomach, or loose bowels; for the latter, a few drops of paregoric may be added to each dose.

No. 2. *Chalk Julep.*—Re. prepared chalk, one drachm and a half; mucilage of gum arabic, one ounce and a half; oil of cinnamon, three drops. Dissolve the oil by triturating it with a large lump of sugar, and then with the chalk and mucilage; to these add four ounces of water.

No. 3. Re. prepared chalk, one drachm and a half; mucilage, one ounce and a half; spirit of lavender compound, half an ounce; water, four ounces; sugar, two-thirds of an ounce; mix. These juleps are

* *A bottle of castor oil, with a vial of peppermint, is the best medicine for colic in a horse, after bleeding him.*

used for disordered bowels; the last may be preferred in dejected spirits. They are useful to dyspeptic patients, and nervous women.

Camomile.—Re. camomile flowers, half an ounce; boiling water, one pint; draw as for tea. One wine glass full every two hours, drank cold, is a good tonic, in flatulent stomach and bowels. The French ladies drink this during their week. In larger and more frequent doses, drank warm, it will puke; and is used to rinse the stomach, at the offset of cholera, and when fevers set in with nausea.

Camomile Poultice.—Re. camomile, two ounces; scalding water, four ounces. Let them stand covered, to soften, and either drain off the water, or thicken it with flour. This is, unquestionably, upon a fair trial on the living subject, the first antiseptic we have, and far superior to bark, charcoal, carrots, or ferments. Sir John Pringle, has ranked it high, though below the bark, on dead flesh. It may be applied in simple powder, when macerating; and wet applications have been injurious. In frost bites, gangreens, ill conditioned sores, and spreading mortifications, it will seldom fail to have a good effect.

Clutton's Febrifuge, (extempore).—Re. ether, brandy, each, one ounce; elixir of vitriol, two drachms; spirit of sea salt, half a drachm; mix. One teaspoonful, in a wine-glass full of water, or more, just to acidulate it, may be given every two hours, or oftener, in low fevers. It is a pretty certain sweat, especially if weak Virginia snake-root is used (warm) instead of water, to dilute it for use. Though this is not the elaborate form of the original, yet it will be found to contain all the essence and virtue of the original, and as easily and speedily made for use.

Corrosive Sublimate Mercury Pills.—Re. corrosive sublimate mercury, fifteen grains; common salt, ten grains; boiling water, three drachms; (180 drops.) Boil in a China cup, or thin Dutch vial, till one half is consumed, and the mercury dissolved. Add to this when cold as much dry crumb of bread as will make 120 pills. Each pill will contain one-eighth of a grain, which quantity may be used morning and night.

Corrosive Sublimate Tincture.—Re. corrosive sublimate, fifteen grains; common salt, ten grains; boiling water, one ounce. Dissolve the mercury with the salt and water, and add one hundred and ten teaspoonsful of whiskey, or of spirits of nitre dulcified, to it. Each teaspoonful will contain one-eighth of a grain; which may be used morning and evening.

Both these preparations are used for venereal disease, when it has infected the system, and to those who will pay attention, it is certainly far above all other remedies, especially when joined with a decoction of woods. See decoction of woods.

Perhaps still less doses, and more patience, may be best in some cases; for the great error of physicians, is their hurrying in mercury, so as to break down the system before they cure the disease. Hence it is, that quacks, who for concealment use small portions long continued, often get the advantage; for no doubt but this article is the basis of all the venereal nostrums in Europe and America.

Corrosive Sublimate Solution.—Re. mercury corrosive sublimate, from one to four grains; common salt, four grains; boiling water, one ounce; dissolve by boiling in a China cup, or German vial, or Florence flask.

These solutions are fit for washes and injections. The weakest may be used as an injection. One teaspoonful of this, weakest, and one ounce of rose water, may be applied to the eye, even of infants, and often with great success, especially in sore eyes that form matter, and threaten much injury.

Coadjulating Mixture.—Re. brandy, two ounces; castile, or other soap, two drachms; salt of tartar, or potash, one drachm. Rub the scraped soap with the potash and brandy, till it will pass a syringe. This is applied on lint, to hemorrhages from small vessels, especially those of the nose. When the bleeding is found to be far back, a portion may be injected with a syringe. See bleeding at the nose.

DECOCTION OF WOODS.

Re. sarsaparilla, lignumvita sawdust, (or shavings,) each, one ounce; water, five pints. Boil for one hour, and then add two drachms of sassafras root bark, and continue the boiling half an hour more. Strain it off. This will yield two quarts, which may be used in twenty-four hours, for venereal, or old rheumatic pains. It is more effectual, when drank warm, and the patient in bed.

Dover's Powder.—Re. opium, one grain; tartar of vitriol, eight grains; ipecacuana, one grain; mix. This is a famous sweat in rheumatism, after a full bleeding and purging. One powder may be used say at ten o'clock, another at eleven o'clock, a third at two o'clock, and a fourth, if needed, at six o'clock, drinking freely of warm lemonade. It is also used for the general purposes of opiates: being less oppressive. But when intended for a mere sudorific, the following formula is an improvement. Re. opium, one grain; nitre, ten grains; ipecacuana, one grain and a half; mix. To be given as above.

ESCHAROTICS.

Medicines to eat down proud flesh, and hard tumours. Burned alum, blue stone, and red precipitate, are caustics.

Elixir of Vitriol.—See acids.

Ether, commonly written Ether.—This is said to be soluble in ten times its quantity of water, but its rapid separation on the heat of the throat being applied, makes it a strangulating medicine, unless it is first reduced by an equal quantity of spirit. Of this diluted ether, one teaspoonful may be used every two hours, in some wine or toddy, or oftener, for flatulent colic, cramp colic, faintings, &c. In cases of suspended animation, it may be used without a previous dilution, as also for any external use. An equal mixture of ether and spirit, adding the same quantity of strong vinegar, makes a good liniment for pains in the face. Camphor, opium, and essential oils, dissolved in ether, make the best tooth-ache drops.

FEVER POWDERS.—SEE POWDERS.

Foxglove, the Tincture.—Re. picked leaves of foxglove, half an ounce; strong spirit, four ounces. Let it digest a week. This is as strong as any quantity will make, as the spirit will be saturated. Ten drops, two to three times a day, will soon be perceived to have an

effect on the pulse. It is used in those accelerations of the pulse that proceed from threatened consumption, as also in spitting of blood, after any active bleedings, and in dropsy. See Dropsy.

It is one of those medicines that requires attention, and must be laid aside for a while, before it has any great effect on the general system. It has been in times past too much trusted to, (see Beddoes) and is now too little regarded.

GALLS.

Re. galls in finest powder, five grains; calcined hartshorn, ten grains; mix. This has been considered an important medicine in obstinate diarrhœa. Three powders may be used daily, in jelly of blackberries, or of other fruit.

Galls, Infusion.—**Re. galls in powder, half an ounce; boiling water, one pint.** Draw it well and strain. This is used for injections. From one to two ounces may be thrown up the vagina, to check excessive discharges.

Galls, Ointment.—**Re. galls in finest powder, one drachm; sugar of lead, levigated, fifteen grains; opium in fine powder, ten grains; soft lard, one ounce; mix well on a tile.** This is a great remedy for painful tumours of the pile kind. It may be smeared on the parts three times a day. Alum or the geraneum macculatum, may substitute galls.

Gaiacum Gum, the Powder.—**Re. gum gaiacum in fine powder, twenty grains; jalap, five grains; mix.** To be taken in syrup of ginger. These powders are an excellent aperient in old rheumatic, and paralytic cases, and may be used daily, or oftener, if the bowels are not already loose; for it is in vain to attempt a cure of either, whilst the intestinal canal is torpid.

Gaiacum, the Volatile Tincture.—**Re. powdered gum gaiacum, one ounce; compound spirit of ammonia, eight ounces.** Let them stand a month in a warm place. One teaspoonful or more in milk, morning and night. This preparation is sometimes very effectual in those sudden, temporary losses of motion of the limbs, by a rheumatic affection. A less expensive prescription may be made up, as follows: **Re. oil of sassafras, one drachm and a half; ether, one ounce; fourth proof whiskey, seven ounces; gum gaiacum, one ounce.** Dissolve the oil in the ether, and add the other ingredients. Let them stand till saturated. The dose is the same as the former.

Glysters, or Enemas.—**No. 1. Re. rosin soap, (of the stores) from one to three drachms.** Cut it very small, and dissolve it in a pint of water; when the froth is gone off, warm it to a milk heat, and use it for an injection. This is clean and effectual in common cases. If needed, add two to four drachms of tincture of aloes.

No. 2. Molasses, one gill; milk, two gills; oil, one ounce; mix. This is an emolient soothing glyster, for irritations, or for fevers.

No. 3. Glauber salts, two ounces; water, one pint; mix. This is used in fevers, or for simple costiveness.

No. 4. Re. castor oil, four ounces; spirit of turpentine, or balsam copaiva, one to two drachms. Stir them together, and add eight ounces of any meat broth. This is used in colic, or to stimulate in any other cases.

No. 5. Re. common salt, one tablespoonful; water, one pint; dissolve. This is a very irritating glyster, and is entirely unfit in *any quantity* for children. It may be used in apoplexy, &c.

No. 6. Re. starch, boiled for common use, one tablespoonful; milk, one pint. This is used for dysentery, and excoriations. Portions of laudanum are generally given in these glysters. The slippery elm, flaxseed, or mallows, may be used when starch is not at hand.

Goulard's Extract.—Re. Litharge, in fine powder, one pound; strong vinegar, one quart; boil them gently in a glazed pipkin, or stone pot, till the vinegar becomes sweet and thickened. It must be often stirred, and kept covered to prevent too quick an evaporation. The above will make one pint. For the eyes, or injections, from five to ten drops may be put to an ounce of water, and one teaspoonful to the ounce for to make up poultices. When used as a topical application for rheumatism, four tablespoonsful may be put to a bottle of water. It is the main dependance to discuss inflammation in man or beast. Every farmer should be well supplied with it. It is sometimes mixed with cream for chilblains and poisonous eruptions.

JALAP.

From eighteen to twenty-five grains, in syrup, purge briskly and certainly. It is, however, seldom used alone: being joined, in prescriptions, with calomel, cream of tartar, magnesia, &c.

IPECACUANA.

Re. ipecacuana, eighteen grains; boiling water, one to two ounces, draw it well as tea. This quantity will generally puke three or four times, especially when encouraged with warm camomile tea. It is a safe and excellent puke. Infants may use about three or four grains. In doses of two grains, every two or three hours, it acts as a febrifuge, or alterative, and is much used in flux or diarrhea, and other irregularities of the bowels.

IRON, usually called Steel (in medicine.)—The flakes around a blacksmith's anvil, well powdered, will answer most purposes. But the rust has its peculiarities, not only in solution,* but is rather astringent than apperient. When iron is taken in powders, about five to ten grains are given, in ginger syrup, from three to four times a day, in female debility, and to tone up the system when brought low by gout, dropsy, &c.

Iron, (the simple tincture.)—Re. flakes of iron, two ounces, in powder; port wine, one bottle; let them stand a month or two. A wine-glassful may be taken, twice a day, for the same purposes as the powder of iron above. The wine makes it more stimulant: cinnamon is a grateful addition

Iron, tincture in spirit of salt.—Re. rust of iron, one ounce; spirit of sea salt, three ounces. Let them stand three days, shaking the glass occasionally. Then pour off the clear liquor, and evaporate it to one-third the quantity, and add six ounces of spirit of wine. From ten to fifteen drops in a wine-glassful of water is a dose, which may be used two or three times a day. It is rather apperient. It is a fine prepara-

* See Dr. Cox's dispensatory article, *tinctura ferri muriati*.

tion for debility, though not so pleasant as the simple tincture. It seems to be gaining ground in practice, and is used in some cases of dropsy, and wherever a tonic is needed; but its main application is to female debility.

KINO, *Gum.*

Ten to fifteen grains, in fine powder, may be used three times a day, for loose bowels. Taken in jelly it has no disagreeable flavour, and may be given to children in half the above doses.

Kino Powders.—See powders.

Kino Astringent.—See astringents.

LAUDANUM.

Re. powdered opium, two ounces; brandy, or Lisbon wine, one pint. Digest a week, or let it stand a month, shaking it every few days, then pour off some for use, and after three months pour off the whole clear liquor. From twenty to twenty-five drops are a dose for an adult that has not been used to it. It is useful in pains, spasms, looseness, want of sleep, nervous debilities, head ache, &c. It is apt to leave the patient costive. Those who get into the habit of using it suffer much, and can scarcely venture to leave it off suddenly, or have resolution to moderate the quantity.

N. B. The bottle should be well stopped, for it will sometimes evaporate so as to become thick, or an extract: one drop of which will kill an infant.

Liniment Volatile.—Re. oil, one ounce; water of ammonia, two drachms; mix. The purer the water of ammonia, i. e. the less carbonated, the stronger the liniment. It is used to apply to the external throat in sore throat; as also to pains, old strains, bruises, &c. It must be covered immediately with flannel, and may be often repeated.

Liniment of Turpentine.—Re. oil, four ounces; spirit of turpentine, half an ounce; mix. A drachm of camphor, dissolved in the turpentine, will improve the flavour. It may be used for old rheumatic pains, palsies, &c. It is a good and cheap application.

Liniment Kentish.—See basilicon.

Liniment of Soap.—Re. dissolve half an ounce of soap in four ounces of water, and when dissolved, add one ounce of water of ammonia. This is used for the same purpose as other volatile liniment. It is cleaner, and therefore to be preferred in some cases.

Logwood, the infusion.—Re. take half an ounce of fine splinters, boiling water, one pint. Draw a strong infusion. One to two table-spoonful may be used, every three or four hours, in looseness. Children may use a desert spoonful. It is a very nice and agreeable astringent.

MERCURY.

See the articles calomel, mercurial ointment, and corrosive sublimate.

Mercurial Ointment.—Re. soft tallow, two ounces; lard, six ounces; quicksilver, four ounces. Grind the quicksilver with the tal-

low, till no globules can be raised, by rubbing some of the ointment on white paper. Have the lard melted, but not hotter than can be borne with the finger, and pour it on the finished mass, continuing the grinding whilst warm, till it is uniformly mixed. Some old ointment will be more expeditious than the tallow to kill the quicksilver; and next to that some *old* tallow. All additions of sulphur and turpentine, are to be rejected. About one ounce and a half will salivate, if rubbed in the groins, or on blistered surfaces; which last is the most expeditious way. And two ounces, if rubbed on any other part more slowly. It is used not only to salivate, but to discuss hard tumours, nodes, &c. The above strength is about what is sold at the apothecaries, though it is sometimes made stronger, and often weaker.

Mercurial Pills, (blue pills.)—These are made like the mercurial ointment, by long trituration, with a revolving pestle, in a marble mortar, as directed for levigating. Two drachms of quicksilver are to be rubbed with three drachms of conserve of red roses, or with the same quantity of the citron of the shops. Five grains in a pill, morning and night, or double that quantity, if intended to act on the gums, are a dose. They are the mildest, and least offensive, of all mercurial preparations in use. They are very much used for liver complaints.

§ It will not be less than twelve hours before the quicksilver is reduced with the best apparatus.

Mucilage of Gum Arabic.—Water, two parts; gum, in coarse powder, one part.

NITRE.

Ten to fifteen grains may be used, four times a day, in syrup. It is given as a diuretic in dropsy, and seldom used alone for other purposes. It is the basis of the best fever powders.

Nitre, sweet spirit.—A teaspoonful may be used as a diuretic, and also to keep up perspiration in colds and in low fevers. It is, in fact, a weak ether, and should be used as such. It is taken in water, and may be repeated three times a day or oftener, according to the purpose for which it is used. As a sweat it must be given every two hours.

Nitrous Acid.—Two drachms in a quart of infusion of lemon peel may be used, by small portions, through the day. It is said to be best when compounded with a small portion of spirit of sea salt. It is used in venereal and liver complaints, with nearly the same ideas and intentions as mercury. In tedious cases it may make a good article to alternate with mercury. It has also been used externally in giving pungency (at least,) to a bath.

OAK BARK.

A handful of the bark from smooth limbs of white or red oak, may be boiled in a quart of water, and strained. Iron will not do to boil it in. This is used for injections, and to apply to loose ulcers, and strained limbs.

Ointment, Basilicon.—Re. wax, four ounces; rosin, ten ounces; melt and add one pound of good lard. Much of the consistence of oint-

ments will depend on the firmness of the wax and lard; as also the season and climate. In making alterations on this account, a very little of the spirit of turpentine may be used to soften the ointment. A large portion will make the Kentish liniment.

The basilicon is in general use as a suppurating salve: and this quality is increased by adding half a drachm of fine powdered red precipitate to the ounce. One of the best means of applying it, is to soften it by heat, so as to saturate a pledget of lint with it, and apply it thus warm once in twelve to twenty-four hours.

Ointment, of Red Precipitate Mercury.—Re. lard, one ounce: red precipitate, in finest powder, one drachm. This may be made of half that strength for common purposes: such as itch, tetters, scald head, and in the stronger state to act on a spongy sore, or keep open a wound from mad dogs, or snakes. It should be kept from light and air.

Ointment, of White Precipitate Mercury.—Re. white precipitate mercury, one drachm, in fine powder; lard, one ounce. Soften the lard and make it up on a tile. This is a very neat and useful mercurial, for children especially. In all manner of eruptions, whether itch or scald head, the parts are to be greased with it morning and night. It is far less apt to affect the gums than the red precipitate ointment.

Ointment, of Nitrous Acid, with Red Precipitate.—Hog's lard, one ounce and a half; tallow, half an ounce; nitrous acid and red precipitate, each two scruples; melt the lard and tallow, and stir in the nitrous acid till the ointment becomes thickened by cold. As soon as it is sufficiently thick to keep the red precipitate from sinking, it must be also added, and well incorporated.

☞ The red precipitate, or any other grade of nitrous mercury, (white or yellow) will do, and must be previously levigated with a little lard, on a tile, or in a wedgewood mortar.

This ointment will be uniform in strength and consistence, and have all the virtues of citrine ointment, in tetters and other eruptions. It may be coloured with turmeric, boiled in the lard.


PAREGORIC ELIXIR.

Re. opium, flowers of Benzoin, and oil of anniseed, each one drachm; camphor, two scruples, (forty grains) brandy, one quart. Let them stand a week in a warm place. They need not be decanted for two months. One teaspoonful may be used, every four or six hours, in a tickling cough. It is often prescribed in compounds; especially with an equal quantity of syrup of squills, for coughs.

PILLS, the mode of making them.—If the articles are of a soft and tough consistence; such as fresh imported gums, they may be well beaten, till they can be rolled out and cut into pills. If they are dry, they must be finely powdered separately, and then thoroughly mixed. After which they are to be cemented together with some paste, suitable to the articles. Sometimes one of the articles composing the pills can be made a paste by a few drops of water or spirit: such articles as aloes, assafoetida, or soap. Cements are composed of mucillages of gum arabic, powder of gum arabic, softened liquorice, extract of gentian, soft manna, citron, sultana raisins, (beat


to a paste,) and common syrup. Resinous paste may be made of the following articles melted together, viz. white wax and sweet oil, each one drachm; white turpentine, half a drachm. Preparations of copper, glass of antimony, tartar emetic, &c., may be given mixed with such paste. It restrains the immediate action on the stomach. In choosing cements, those which are bulky may be used for small articles: as manna for calomel; and vice versa. When the mass has been made ductile by beating, it must be rolled out into a cylindrical form, of the thickness of a quill, and cut into segments equal to the number of pills to be formed. They are then to be rolled round, between the forefinger and the thumb. A little magnesia, flour, or starch, may be used to keep them from adhering; or of rhubarb or jalap, if they are purging. It is common when the articles are of a griping nature, to add an aromatic. Some essential oil may be rubbed on the bottom of a saucer, and the pills shook briskly, so as to give each a small coating of the oil.

Pills, Purgative.—Re. aloes, eighteen grains; antimonial powder and calomel, each twelve grains; make twelve pills, with syrup, or with a few drops of spirit. Two of these will generally move the bowels, and three or four act pretty briskly. They are a good family pill, in colds and head ache, with costive bowels.

Re. aloes, thirty grains; gambouge, six grains; calomel, twelve grains; make eighteen pills with syrup. These are rather more active than the former.  Grind the gambouge powder with the syrup first, and then add the other articles in fine powder.

Re. aloes, twenty-four grains; blue vitriol, in fine powder, six grains; syrup enough to form a mass for twelve pills. Two of these may be given every hour, or in a longer period. They are a most sure purge; and when persons are naturally hard to move, these may be used. Roll them in a drop of mint oil, so as to give a flavour.

Pills, James's.—Re. gum ammoniac, twenty-four grains; gambouge calomel, pulvis antimonialis, each eight grains. Make thirty-two pills with syrup. The gambouge should be finely ground, and first mixed with the calomel and pulvis antimonialis, and then all well beat in a mortar till the gum becomes warm and ductile. These are nearly the same as James's analeptic pills. The orange tint if required, may be made by an addition of any fine red colour, such as a few grains of factitious cinnabar, ground with the gambouge. They are a good deobstruent pill, and may be used as an aperient with those who cannot use aloes. Two to four are a dose.

Plummer's Pills.—Re. calomel, golden sulphur of antimony, soft manna, each, twelve grains. Beat them well together, and make twelve pills. One morning and night, in obstructions of the liver. The sop and liquorice of the old formula, could have no beneficial effect, and was not very scientific.  Scammony may be substituted for aloes, in any of those pills where there is an objection to the former, as in piles, and strangury.

Plaster, Blister.—See Blistering Plaster.

Plaster Adhesive.—Re. litharge plaster (Diachalon's,) five ounces; rosin, one ounce. Melt, and stir them well together. This is to be spread, whilst warm on slips of new linen, of one inch width or more, as an adhesive plaster. The litharge plaster should be old.

Plaster of Soap.—Re. new soap of the stores, soft tallow, each one ounce. Cut up the soap into small squares, melt the lard and pour it on, and whilst soft, beat them well together. Oxydes of lead, such as levigated red lead, or litharge, may be added in portions of one tenth to one-twelfth. This is a good plaster to lay on hard chronic tumors, either of an inflammatory or indolent kind. It is well adapted to some of those on women's breasts, and to glands on the neck. It must be renewed when it loses its softness, for all plaisters irritate when dry. If the soap is old it may be moistened first with a little water.

Plaster of Tar.—Re. tar, one teaspoonful; bees wax, one table spoonful. Melt the wax, and stir in the tar. This is of a very good consistence, and may be used for pains in the breast, and other purposes. It must be spread whilst liquid, but not so thin as to run through the linen or leather. It is an excellent grafting wax, and is very useful to stop vials with acids. \mathcal{E} A second melting improves it.

Potash.—See alkali, and salt of tartar.

Powders.—The articles for powders should be ground separately. The drying with heat injures some. Acids, and alkalis, should be ground in Wedgwood's, or in porcelain mortars; corrosive sublimate, should be ground in glass only.

Powders, Dover's.—See Dover's Powders.

Powders, Fever.—No. 1. Re. nitre, sixty grains; tartar emetic, one grain and a half. Grind the tartar with a small part of the nitre first, and then with the whole, and make six powders. One to be taken in jelly, from every ninety minutes to two hours. It may be coloured with cochineal, which will show when it is well mixed.

No. 2. Re. nitre, ten grains; antimonial powder, four grains; mix. One such to be taken in jelly every two hours. This is less active, or milder than No. 1.

No. 3. Re. soluble tartar, two drachms; antimonial powder, twenty grains; mix, for five powders; one to be taken in thin syrup, every two hours. These are still more mild than No. 1. and 2. and more aperient. A grain of calomel may be added to each dose, when it becomes desirable to act as an aperient, as well as sweat.

No. 4. Re. prepared chalk, one drachm; golden sulphur of antimony, ten grains; mix, for five powders. These are suitable when the bowels are loose. Two or more drops of laudanum may be added to each powder. They are to be given as the former, in syrup, or mucilage of gum arabic. \mathcal{E} From the above list a choice may be made to suit the grade, and state of disease.

Powder of Kino.—Re. gum kino, two ounces; cinnamon, half an ounce; opium, sixty grains, all in fine powder; mix them well together. Twenty-four grains contain one of opium. From eight to twelve grains may be given every four hours in diarrhœa.

Powders, Sedlitz.—Re. tartaric acid, twenty grains; soda, twenty-two grains; powdered rochelle salts, one large dessert spoonful. Dissolve the tartaric acid, in a wine-glass full of water, and the salts and soda, in a gill of water, (in a separate vessel) when dissolved, add them together, and as soon as the ebullition has come to its height, take the whole for a dose. It may be sweetened.

Powders, purging.--No. 1. Re. jalap, ten grains; magnesia, powdered loaf sugar, each one heaping teaspoonful; mix with two ounces of water, or mint tea. This is a very nice and gentle purge. The magnesia and sugar cover the offensive taste of the jalap.

No. 2. Re. jalap, fifteen grains; nitre, in fine powder, ten grains; calomel, five grains; mix. This is an active and effectual purge in inflammations, fevers, colds, &c. but must not be more than twice used with the calomel.

No. 3. Re. jalap, fifteen grains; calomel, eight grains; mix. This may be used where salines are an objectionable mixture in the purge.

No. 4. Re. jalap, fifteen grains; cream of tartar, forty grains; mix. This is often used in dropsy.

No. 5. jalap, twenty grains; blue vitriol, two grains; mix. This may be repeated every four hours, till it operates, and no longer. It is excellent in maniacal cases. It produces most astonishing evacuations.

N. B. All the above powders should be taken in syrup, jelly, or mucilage.

Purging Salts.--Glauber, epsom, and rochelle salts, are those in use. The rochelle, requires about two ounces to operate; the others, one and a half ounces. They are to be dissolved in three or four ounces of warm water. \mathfrak{ss} One pound of salts, and thirty grains of tartar emetic, or forty grains of blue vitriol dissolved in a quart of boiling water, is a good purge for a horse.

QUININE.

Re. quinine, eight grains; mucilage of gum arabic, mint water, each one ounce. From one fourth to one sixth may be given every hour during an intermission in a quotidian, tertian or quartan ague. It may be used also in a pill form. It should never supersede the decoction, or pure bark, where the latter can be used. As an antiseptic or tonic, it has no claims; nevertheless, it should never be administered during a febrile state.

RHUBARB.

The best when broken exhibits a granulated surface, breaking short without fibres. When rubbed, it loses its reddish hue, and becomes of a fine buff colour. That which has lost its fine colour, is injured; of course, but a small quantity should be ground at a time. Twenty-five grains are a purge.

Rhubarb julep.--Re. rhubarb, twenty grains; make this as fine as possible, and add to it six grains of soda, and twenty teaspoonsful of spear mint tea. Sweeten it, and give one teaspoonful every hour, till it has some effect. The vial should be shaken up every time it is poured out. This is altogether for sucklings, in acid stomach, colic, or costiveness. If no mint is to be had, a teaspoonful of the strong infusion of calamus may be added to nineteen of water.

Rhubarb powder with magnesia.--Re. rhubarb, twenty to twenty-five grains; magnesia, one teaspoonful; essence of mint, four drops; water, three ounces; mix. This is a very gentle aperient, and is given to persons with relaxed bowels.

Rhubarb Tincture.—Re. rhubarb, one ounce; gentian, half an ounce; cardamon seed, two drachms. These are to be in coarse powder; (calamus may be used instead of cardamon seed.) Brandy, four ounces; wine, one pint. Digest a week. This may be used in doses of two table-spoonful morning and evening, to correct a colicky habit with costiveness. It is called bitter tincture of rhubarb.

Rhubarb Tincture, compound.—Re. rhubarb, two ounces; liquorice root, half an ounce; ginger, nutmeg, English saffron, each one drachm. All but the saffron, must be pounded. Brandy, eight ounces; wine, three pints. Digest for two weeks. This may be used for the same purposes, and in the same quantity as the above. It is a cordial.

SALT OF TARTAR.—SEE ALKALIS.

SENEKA.—*Snake root.*—Re. seneka, half an ounce; boiling water, one pint. Draw a strong tea. One wine-glassful may be given every hour or two, as long as the stomach will receive it; to promote, or keep up a sweat in rhumatic fevers, and pulmonary affections. It is also recommended as a good article in female obstructions, drank warm, whilst in bed; the feet being previously well bathed. See Cox's syrup.

Senna.—Good senna has very small oval leaves, with few stems, and is of a pleasant smell.

Senna Infusion, or Tea.—Re. senna, cream of tartar, each one drachm; boiling water, five ounces. Draw it an hour; strain and sweeten it with syrup of ginger. It is a very neat purge. The whole may be taken for a dose. $\mathcal{Q}\mathcal{z}$ Salts, and aromatics, correct the griping quality.

Senna Electuary.—Re. senna, (picked,) half an ounce; sultana raisins, or figs, half a pound; add half of a very small nutmeg. Beat the senna and nutmeg very fine, and sift them; pick off the stems from the raisins, and beat all well together. The size of a small walnut will operate twice or three times. It is one of the most pleasant aperients for ladies. Children will eat it freely.

Sinapisms.—These are made by spreading mustard (as made for the table,) on linen; and when this is not to be had, some finely scraped horse-raddish, or the bruised leaves may be applied; or a plaister made by beating one ounce of black pepper, very fine, and mixing it with four ounces of lard.

These are used in cases where it might be too late to wait for a blister; as also to inflame the skin. They are applied in pains, in languor, and in a collapsed state of the system, to rouse and extend the circulation.

Snake root, Virginia.—(*Aristolochia*).—Re. snake root, one-third of an ounce; boiling water, one pint. Draw a tea. One wine-glassful every hour or two, to keep up a perspiration in low fevers, or in intermittents. See Intermittents.

Drank in a cold state, it is a very good tonic bitter. It is often added to decoctions of bark. With about one grain of ipecacuanha, and five of nitre to each dose, it becomes a very sure sweat, that may be used in any fevers where the pulse is not very high.

Soda.—See Alkalis.

Soluble Tartar.—(*Tartarite of Potash.*)—This is a very fine neutral salt; less offensive to the taste, as also to the stomach, than nitre. It is too much neglected by physicians. When rather moist, it may have a little chalk added to it. Three or four drachms will act on the bowels; especially when a little antimonial wine is added. It forms a good fever powder of a moderate grade.

Tartar soluble mixture.—Re. soluble tartar, antimonial wine, each two drachms; loaf sugar, half an ounce; water, five ounces; one ounce may be used every two hours, in colds with fever. Such medicines are far preferable to opiates. This mixture makes a nice medicine for children with fevers, who may use from one-fourth to half an ounce of it at a dose, according to their age.

Squills, Powders.—No. 1. Re. squills, three grains; cream of tartar in coarse powder, six grains. Rub them together till the squills are made fine. It is impossible to grind squills alone, when they are fresh.

No. 2. Re. squills as above in mixture, nine grains; calomel, one grain; mix.

No. 3. Re. squills, (alone,) three grains; nitre, ten grains; grind the squills with the nitre. Any of these may be given from four to five times a day, if the stomach will bear it. They are used for dropsy of the breast in particular. They may also be used for other dropsies, and in severe, or protracted phlegmatic affections of the lungs.

Sulphur powder.—Re. sulphur, cream of tartar, each one teaspoonful; to be taken in molasses, or syrup. This is a famous laxative in piles, taken daily. With the addition of five grains of jalap, it is very suitable for habitual costiveness.

Sulphur Ointment, for the eyes.—Re. precipitate sulphur, fifteen grains; sugar of lead in finest powder, five grains; fresh soft lard, one ounce; mix the sulphur and lead intimately, and then add the lard. This is a sovereign application for sore eyes, when the lids are inflamed, or eruptive. A little must be rubbed on morning and night, on the inflamed parts, but not put into the eye.

Syrup, common.—Loaf sugar, one ounce; water, half an ounce; boil and skim it.

Syrup Hive, (of Dr. Cox.)—Re. seneka bruised, squills also bruised, each one ounce; water, one pint. Boil slowly till one half is consumed. Strain it off, and add half a pound of pure honey, and continue the boiling till about one-third of the whole has evaporated. To every ounce of this syrup, add one grain of tartar emetic, which must be dissolved in a little boiling water previously. From ten drops to one and a half teaspoonsful are a dose; from every quarter to every half hour, regulating it by the age, and the difficulty of puking the child. It must always be extended to free puking in croup; but need not be pushed so far in common coughs. One teaspoonful contains one-third of a grain of tartar.

Syrup of Manna.—Re. flake manna, loaf sugar, each four ounces; senna, one drachm; boiling water, four ounces; draw as tea. Strain the senna, and boil the sugar and manna, in the infusion of senna, to a syrup. One teaspoonful every three or four hours for infants. Ladies may use from a half to one ounce. It is a very pleasant medicine, and well suited to open the bowels gently.

Syrup of Squills.—Re. fresh squills well bruised, two ounces; strong vinegar, one pint and a half. Put them in a stone pot, with a cover, and set that in a kettle of hot water. Boil it four hours, and strain the vinegar repeatedly till it becomes quite free of all sediment; and to every ounce, add two ounces of loaf, or dry Havana white sugar, and give it a boil, so as to turn the sugar into a syrup. Keep it in a close glass vessel; for both the vinegar, and the bitter principle of the squills, will evaporate. The dose is one teaspoonful every two hours. It is generally given with nearly an equal portion of paretoric in coughs. It is sometimes given to children as a puke, when oppressed with phlegm; in such case the doses are given every half hour. It might be used in any case where squills are useful.

TARTAR EMETIC.—SEE ANTIMONIALS.

Turlington's Balsam, or traumatic balsam.—Re. gum benzoin, three ounces; aloes, half an ounce; balsam of Peru, two ounces; strong spirit of wine, one quart. Crack the aloes and benzoin, and having put all together, let them stand a month before using. It may be coloured or not with saunders; in which case the spirit of wine is to be first coloured and strained. This balsam is applied on lint to bad bruises and small lacerated wounds with great effect. On the second dressing it is merely poured on the first lint, which cannot be removed till a suppuration ensues. It is often useful, when ointments disagree. It is sometimes used in doses of twenty drops on sugar, for an old cough. It is the basis of balsam of honey.

Turpentine, (spirit.)—From ten to thirty drops are given in syrup, broth or milk, two to three times a day. Much larger doses have been given, but for complaints of the usual stamp, the above doses are quite sufficient, and larger will often produce disease, instead of curing. Its principal use is in sciatica, and it was recommended by Dr. Cheyne. Experience proves its efficacy. It is also used for worms, epilepsy, lock jaw, dysuria, &c. and is much used when diluted with oil, as a liniment, for external purposes.

Turpentine varnish.—Re. rosin, one pound; linseed oil, two ounces; melt, and add spirit of turpentine sufficient to make it of the consistence of honey. This may be applied on the surface of some tow in deep ulcers, from mortification, burns, &c. It is a cheap, easy and efficacious dressing, and may be had at the paint shops, ready made. It substitutes the Kentish liniment.

VALERIAN ROOT.

Re. valerian, in coarse powder, two drachms; boiling water, fourteen ounces. Draw a tea, and strain it off. It must not be kept long near the fire. This quantity may be used in suitable doses, every four to six hours, in nervous head-ache, and hysteric tremblings. Its chief place is where assafoetida and opium are too stimulating.

Vitriol blue.—This is a certain puke in doses of ten grains, and a sure purge given in doses of a grain or two every two hours. It is more generally given with ipecacuana, than alone, in doses of five grains of each. It may be used for old drinkers, where tartar seems

sluggish. It is an excellent escharotic, sprinkled on, or applied to proud flesh in a saturated solution. See pills and powders.

Vitriol white.—From fifteen to forty grains, in two ounces of water will puke freely. It is given to throw off poisons, and sometimes to children in whooping cough; three or four grains every half hour may be used to children from five to seven years old. White vitriol is also used for eye water, and for injections, in portions of two to three grains to one ounce of water.

Volatile alkali.—See alkali.

WORMSEED, THE OIL.—(*Chenopodium Anthelminticum*.)

This is, unquestionably, the most certain of all the vermifuges that has ever been discovered. It may be exhibited too freely. See the specific table of doses. Five or six drops, grated between two lumps of loaf sugar, into a tablespoonful of water, and taken morning and night for a week, and then followed by a dose of castor oil, or calomel and jalap, is sufficient for any age, and will seldom fail. But as it is an expensive oil, and a little will give a strong flavour, it will be often adulterated.

In this neighbourhood, (Baltimore County,) the seed are sown and distilled in the most simple manner, by putting a thick soapstone on an iron pot, and passing through it a gun barrel, or cylinder of tin. Some use nothing but a poplar block, well soaked in hot water, for the still top.

A GENERAL RELATIVE TABLE OF DOSES;

Supposing twenty-four grains of any powder a dose for adult age.

A child of two months, one-sixteenth, or one and a half grains, or drops, if it be a liquid of a watery kind.

A child of seven months, one-twelfth, or two grains.

A child of fourteen months, one-eighth, or three grains.

A child of twenty-four months, one-sixth, or four grains.

A child of five years, one-third, or eight grains.

A youth of fourteen years, one half, or twelve grains.


A man, twenty-one to fifty, twenty-four grains.

A man of seventy, twenty grains.

A man of eighty-four, eighteen grains.

SPECIFIC TABLE OF PARTICULAR ARTICLES.

| | Laudanum. Drops. | Tartar Emetic. Grains. | Ipecacuan. Grains. | Calomel. Grains. | Oil of wormseed. |
|--------------|---------------------|------------------------------|-----------------------|---------------------|------------------------|
| Grown person | 15 to 25 | 2 to 4 | 12 to 18 | 6 to 10 | 5 drops 3 times a day. |
| Youth of 12 | 4 to 8 | 1-2 to 2 | 6 to 12 | 4 to 6 | 4 drops twice a day. |
| Child of 3 | 2 to 4 | 3-4 to 1gr | 4 to 6 | 3 to 4 | 3 drops twice a day. |
| Babe of 1 | 1 to 2 | | 2 to 4 | 2 grains | |

N. B. To check fits, a child of three or four years old may use four to six drops of laudanum, and a babe three or four.  Laudanum that has become thick by evaporation, should never be given;

as one drop may become nearly equal to a grain of the extract of opium. Several children have been destroyed that way.

Essential oils, as wormseed, penny royal, &c. will destroy children if administered too freely. They should be dropped on sugar, and grated with another lump; then rubbed with a few drops of brandy, and have at least one teaspoonful of water, to each drop of essential oil.

A drop of laudanum, or a drop of antimonial wine, are very different quantities compared to a drop of water. Thus sixty drops of water, are a drachm; but it takes about one hundred and thirty drops of laudanum, if made with spirit, to make a drachm, and about eighty or ninety if made with wine. About eighty drops of antimonial wine are a drachm.

☞ This must be attended to in using Lane's measure glass.

NURSERY DEPARTMENT.

APPLE TEA.

Re. red streaked apples cut into very thin slices, two apples: boiling water, one pint. Draw by the fire till the water becomes of a pink colour; sweeten it well with loaf sugar. It is best when made twenty-four hours. This is one of the most palatable, and beautiful drinks that can be offered to a patient with fever.

Imperial drink.—Re. cream of tartar, two drachms; lemon peel, two drachms; loaf sugar, two ounces; boiling water, one quart. Dissolve, and pour off, after settling two hours. This may be drank freely in fevers and dropsies.

Artificial lemonade.—Re. tartaric acid, fifty grains; water, one pint; essence of lemon, four drops. Drop the essence on a large lump of sugar, and grate it with another, and mix all together. This may be used warm or cold, for any purposes where lemonade is used, as fevers, colds, or in dropsical cases.

Bran tea.—Take a pint of new bran, sift it in a coarse sifter, to get off all the flour; pour on it two quarts of boiling water, and draw it well for two hours. Strain it, and sweeten it with honey, or liquorice. This is a fine softening drink taken warm, at bed time, for coughs, and a tight breast.

Elm tea.—Re. take of the bark of slippery elm, (*ulmus fulva*), dried, one ounce; boiling water, one quart. Draw till the water becomes a mucilage, and sweeten it. This may be used for coughs, and dysentery. The patient may drink as much as he pleases. The juice of an orange will add to its pleasantness.

Egg tea.—Re. one fresh egg; loaf sugar, two level tablespoonsful; beat them well together; pour on eight to ten ounces of boiling water, by degrees, continuing the beating all the time. This is a very elegant drink in evacuations, and well suited for a night draught in colds.

Arrow-root jelly.—Re. arrow-root starch, one dessertspoonful; beat it in a bason with a little cold water; then pour on it half a pint of

boiling water. Stir it briskly, and let it boil a few minutes. Remove it from the fire, and add two spoonful of Lisbon wine, some sugar, and a little lemon peel. It is also very grateful with a portion of orange peel.

Rice milk.--Rice, one teacupful; milk, two quarts. Boil the rice soft, in some water; pour off the water and drain it; then boil the rice in the milk till perfectly soft, and sweeten it. A little nutmeg may be added. It is one of the best diets for dyspepsia, and in diarrhoeas is almost indispensable; more especially to the south. The clear rice water that first comes off is a good drink, especially for children when not taking the mother's milk.

Barley water.--Re. barley, two ounces. Wash it in cold water, then boil it with half a pint of water a short time, to take out the colour; pour off this water, and add five pints of fresh water, and boil it half away. To a quart of this, add half an ounce, or more, of sultana raisins, just at the finish of the boiling, so as to plump them up. If more sweetening is needed, add sugar.

Barley water is used in all coughs, in bowel complaints, and for drink and nourishment, after any disease that has continued a few days, without the patient eating. This latter circumstance is so badly attended to, that patients often sink for want of natural energy, that might be easily kept up by nourishing drinks.

Gruel.--Re. corn flour sifted very fine, one heaping tablespoonful. Boil it in a pint of water, keeping up the quantity with additional boiling water, till it becomes nearly a jelly; sweeten it. When the case admits, a little wine and nutmeg may be added. This is a first rate nourishing article, and may be used to any extent, to restore persons after fevers, and in exhaustions of any kind.

Panada.—Take a common hard cracker, (biscuit,) or in its stead, a slice of old (but not sour) bread, grate it fine, and boil it with a pint of water to a jelly; sweeten it, and add a little nutmeg, and some wine, if the patient is not feverish. This is used for the same purposes as the former, and may make a change with gruel, and barley water.


Wine whey.—Boil a pint of milk, and whilst boiling, add a wine-glass or more, of Lisbon wine, till it turns the milk; then take it off and strain it from the curd; sweeten it if required. This is both food and physic, in a low, languid state. A small teacupful may be used every hour, or as may be needed.

Milk toddy.—Re. take of best old brandy, one ounce; milk, eight ounces; sugar, one ounce. Beat and dissolve the sugar in the milk, and add the spirit. This will sometimes lay on the stomach of a person reduced by long fevers, or with flatulent stomach, when no other article will be retained. In a sudden sinking from typhus, it is extremely useful.

Alum whey.—Milk, one pint; powdered alum, one teaspoonful. Boil the milk gently, and whilst boiling, add the alum, and stir it till the whey separates; strain it. This is very useful, especially to females with excessive discharges. A cupfull may be used (cold,) frequently, say every hour; or as may be needed from the excess of disease.

PURIFYING ARTICLES.

Take of chloride of lime, two wine glasses full; water, two quarts. Mix it first into a paste, and then add the rest of the water. Sprinkle the floors and plastering. When carpets and cloths are to be sprinkled, one pound may be put to five quarts of water, stirred and strained. The clear settlings may be sprinkled on. A gallon of fresh water may be added and preserved in bottles, using it the same way; or some may be set in stone dishes about the room. Rooms may be purified when no persons are in them, by putting a teaspoonful of saltpetre, half a teaspoonful of table salt, and one large teaspoonful of black manganese, (all powdered,) into a tea cup, and placing it on some hot ashes; add to it one teaspoonful of oil of vitriol, previously mixed with two teaspoonsful of water. If not moist enough to fume, add a little more water. This will be necessary daily, in some cases, and the patient can be removed back again; but to prevent such daily trouble, the following mixture can be used whilst the patient remains in the room.

Common salt, black manganese, each two ounces, in powder; oil of vitriol, one ounce and a half; water, one ounce. The water and vitriol are to be in a separate cup. Half a teaspoonful of this diluted acid may be put into the cup, with the manganese and salt every three or four hours, so as to regulate the discharge of the gas in the room, which can be borne by the patient.  The potters and paint stores keep manganese for sale.

When the aforesaid articles are not to be had, lime may be used instead, either for sick rooms, or for damp apartments, and for fetid places, such as sinks, gutters, privies, and manure heaps. A quart of fine lime mixed with some sand, may be sprinkled on the floor every three days. Cellars should have a thick sprinkling once a month, and sinks much oftener. One bushel of slacked ashes should be put into privies every month, and some lime sprinkled on every week. Manure heaps should never be suffered to remain near a dwelling. They are less injurious on the north-east side of the dwelling; and when it becomes impracticable to remove them, they should be kept white with lime, which is not lost to the farmer.

The above directions, though needful every summer, are particularly so when the season is sickly.

N. B. The Apothecarium contains, in part, the identical formulas of some of the foreign Pharmacopœias, viz: London, Edinburgh, and Dublin. Some of those now offered are altogether new, (in print.) or altered from the above named Pharmacopœias. The alterations consist in simplifying cheaper substitutes proposed, and the increase of articles that were important, or their rejection, when unimportant, or expensive; and in some changes of the menstruum, for tinctures, to make the article more clear or potent, and in other cases less ardent.

The author flatters himself, that neither the power nor elegance of the articles have in any case been sacrificed. The nature of the book, and his own experience, are his apology for those changes.

CONTENTS OF THE APOTHECARIUM.

ACIDS, viz.

Elixir of vitriol, }
Oil of vitriol dilute, }
Tartaric acid, }
Ætherial mixture,
Antipertussis, of Letsom,

ALKALI, viz.

Salt of tartar, or potash, }
" soda, }
Sal ammoniac volatile, }

ALOES.

Aloes pills, with soap,
" with steel,
" with assafoetida,
" with myrrh and
steel,
" with calomel,

Aloes powders, with iron and
myrrh,

" tincture,

Alum candy,

" curd,

" injection,

" whey,

" burned,

Ammoniac gum, (powder,)

" decoction,

" infusion,

ANTIMONIALS, viz.

Tartar emetic,

" ointment,

Antimonial powder, or

Pulvis antimonialis,

Antimonial wine, of tartar,

" of Huxham,

Angostura bark,

" infusion,

Apple tea,

Arsenic, (Fowler's solu-
tion,)

Arrow-root starch,

Aromatic tincture,

Assafoetida pills,

" tincture,

Astringent powders,

" tincture,

" water,

Balsam copaiva,

Barley water,

Bark, Peruvian,

" decoction,

" infusion.

" levigated,

" tincture compound,

" simple,

Baccharis halimifolia,

Bitters, gentian,

" willow,

Borax,

Bran tea,

Burgundy pitch,

Cantharides plaister,

" tincture,

Camphor,

Calomel,

" pills,

Castor oil,

Cerate saturnine,

" spermaceti,

" Turner's, or cala-
mine,

Chalk,

" julep,

Camomile tea,

" poultice,

Chloride of lime,

Clutton's febrifuge,

Coagulating mixture,

Corrosive sublimate pills,

" tincture,


Decoction of woods,

Dover's powders,

Egg tea,

Elixir of propriety,

| | |
|--------------------------|---------------------------------|
| Elm tea, | Pills, with calomel, |
| Ether, or <i>Æther</i> , | purging, |
| Fever powders, | James's imitation of, |
| Flies, Spanish, | Plummer's, |
| Foxglove tincture, | Plaister, blister, |
| Gall's infusion, | " soap, |
| " ointment, | " tar, |
| " powder, | Potash, or salt of tartar, |
| Glysters, | Powders, fever, |
| Goulard's extract, | " kino, |
| Gruel, | " purging, |
| Guaiacum gum, | " seidlitz, |
| " tincture volatile, | " rhubarb, |
| Jalap, | Purifying articles, |
| Imperial drink, | Rhubarb, |
| Ipecacuana, | " julep, |
| Iron, powders, | " powder, |
| " wine, | " tincture bitter, |
| Kino gum, powders, | " compound, |
| " tincture, | Salt of tartar, or potash, (ve- |
| Laudanum, | getable alkali.) |
| Lemonade, artificial, | Seneka snake root, |
| Liniment, Kentish, | Senna electuary, |
| " soap, | " infusion, |
| " turpentine, | Sinapisms, |
| " volatile, | Snake root, Virginia, |
| Logwood, | " Seneka, |
| Mercurial ointment, | Soda, fossil alkali, or natron, |
| " pills, | Soluble tartar, |
| Milk toddy, | " mixture, |
| Mucilage of gum arabic, | Sulphur ointment, |
| Nitre, sweet spirit of, | " powders, |
| Oak bark decoction, | Squill powders, |
| Oil of vitriol dilute, | " syrup, |
| Ointment, basilicon, | Syrup hive, of Dr. Cox, |
| " citrine, new form, | " of manna, |
| " calomel, | " squills, |
| " red precipitate, | " sugar, |
| mercurial, | Turlington's balsam, |
| " white precipitate | Turpentine spirit, |
| mercury, | " varnish, |
| Panada, | Valerian root tea, |
| Paregoric, | Vitriol, blue, |
| Pills, how made, | " white, |
| with aloes, | Wormseed oil. |

 As the above medicines are arranged under large alphabetical letters in the Apothecarium, they may be readily found.

SYNONYMS;

Or corresponding names with those used in the Family Adviser.

These synonyms are taken from the London Pharmacopoeia; and as the old names in the same Pharmacopoeia, and the names in the Edinburgh and Dublin Pharmacopoeias are, in most cases, a variation from the new names of the London Pharmacopoeia, here used, it will be well when there is any doubt of the identity of the article, to consult a general table of those variations, which may be found in most Dispensatories. See Dr. Cox's American Dispensatory, 4th edition, page 661, and following.

Pharmacopoeia names.

Acidum nitricum,
 Æther sulphuricus,
 Ammonia carbonas,
 Antimonium sulphur precipitatum,
 Antimonium tartarizatum,
 Argenti nitras,
 Acidum benzoicum,
 Ceratum calaminæ,
 Ceratum castacei,
 Cusparia,
 Chincona,
 Cuprum ammoniacum,
 Cupri sulphas,
 Calamina (lapis),
 Cetaceum,
 Emplastrum lyttæ,
 Emplastrum plumbi,
 Emplastrum resinosum,
 Extractum conii,
 Ferri carbonas,
 Ferri sulphas,
 Hellebori fœtidi, (folia),
 Hydragryum,
 Hydragryum precipitatum album,
 Hydragryi oxydum rubrum,
 Hydragryi oxymurias,
 Hydragryi submurias,
 Liquor ammonia subcarbonatis,
 Liquor calcis,
 Liquor arsenicalis,
 Liquor antimonii tartarizati,
 Lytta,

Common names.

{ Aqua fortis, nitrous acid, or ni-
 { tric acid, when deprived of
 its fumes and colour.
 Æther.
 Volatile sal ammoniac.
 Golden sulphur of antimony.
 Tartar emetic.
 Silver, or lunar caustic.
 Flowers of benzoin.
 Turner's cerate.
 Cerate of spermaceti.
 Angustura bark.
 Peruvian bark.
 Ammoniate of copper.
 Blue vitriol; blue stone.
 Calamine stone; ore of zinc.
 Spermaceti.
 Blister plaister.
 Diachylon, or litharge plaister.
 Sticking plaister.
 Extract of cicuta, extract of hem-
 lock.
 Rust of iron, (steel.)
 Salt of steel, copperas.
 Heleboraster (leaves.)
 Quicksilver.
 White precipitate mercury.
 Red precipitate mercury.
 Corrosive sublimate mercury.
 Calomel.
 Spirit of hartshorn, (viz. watery
 distillation.)
 Lime water.
 Fowler's solution of arsenic.
 Antimonial wine, (of tartar.)
 Spanish flies, (meloe and canthari-
 des.)

Pharmacopoeia names.

Mistura ammoniaci,
Magnesiæ sulphas,
Magnesiæ carbonas,
Magnesia usta,
Potassa cum calce,
Plumbi Subcarbonas,*
Plumbi Saperacetas,
Potassæ acetas,
Potassæ subcarbonas,
Potassa fusa,
Potassæ super tartras,
Potassæ tartras,
Potassæ sulphas,
Pix arida,
Radix rhei,
Sodæ subboras,
Sodæ murias,
Sulphas sodæ,
Sævum,
Senega radix, (polygala,)
Serpentariæ radix, (aristolochia,)
Sodæ subcarbonas,
Spiritus ætheris nitrici,
Spiritus ammoniæ aromaticus,
Tinctura lyttæ,
Tinctura ferri muriatis,
Zinci sulphas,

Common names.

Lac ammoniac, by decoction, or
 trituration.
 Epsom salt.
 Common magnesia.
 Calcined magnesia.
 Common vegetable caustic, (li-
 quid.)
 Dry white lead.
 Sugar of lead.
 Diuretic salt, acetate of potash.
 Salt of tartar, of wormwood.
 Common vegetable caustic, in rolls.
 Cream of tartar.
 Soluble tartar.
 Vitriolated tartar.
 Burgundy pitch.
 Rhubarb root.
 Borax, refined.
 Table salt.
 Glauber salt.
 Mutton suet.
 Seneka snake root.
 Virginia snake root.
 Soda prepared.
 Sweet spirit of nitre
 Spirit of ammonia, compound.
 Tincture of cantharides.
 Tincture of steel, in spirit of salt.
 White vitriol.

* *There seems much impropriety in this name.*

DIET AND DRINKS.

It may be expected that a work written for popular instruction, would contain very minute directions for the use of such articles of diet, as are necessary for the preservation of health. But the author confesses that he has very little information on this point, more than his own experience and observation; for chemistry has done but little more in this way, than to develop the quantity of saccharine matter, and the starch contained in vegetables: and on these two constituents depend the *quantum* of nourishment. But those two may be so enveloped, so mixed with other matters, or so difficult to separate by the digestive powers, that a table of *digestibility* or of *healthiness*, could not be made out from such data.

As for meats, the relative difference of nourishing principles between each kind, is so little known, that it would be presumption in an individual to give his limited experience and knowledge. But the stimulating quality of meats is rather better known, and their general nourishing qualities experienced by all. Their digestibility is very precarious, and will often depend on taste or on habit; so that some persons will digest a piece of mutton better than they can the breast of a chicken.

The United States subsistence department allow their soldiers, whilst in garrison, one pound and a quarter of beef, or three-fourths of a pound of pork, with vegetables. The quantity of pure meat, after extracting the bone, will not average more than eight ounces. It may therefore be taken as a rule, that eight ounces of meat is a full quantity for a man in the prime of life, and vigour of health; and of course, such a quantity is an *excess* for the inactive, feeble, and the aged;* yet we will find many of our citizens, taking this quantity, or more, with a full compliment of highly seasoned vegetables, without using any exercise to work off the surplus. The consequence is, that it must, sooner or later, engender disease; for few persons grow either larger or fatter after passing twenty-five years of age; and the question may be asked, what becomes of the surplus? Although no great precision can be aimed at in such things, yet the history of disease gives us a pretty clear insight of the matter. And first of all, the surplus matter is liable to disturb the *primæ viæ*, producing dyspepsia or diarrhœa. This is perhaps the least dangerous, and the most conspicuous event. If however the digestive powers are sufficiently strong, the aliment becomes digested, and then passes into the circulation. If it is not assimilated there, it must pass off as noxious matter, either in a dropsical effusion, or in a diabetes; two diseases far more serious than the former. It is, however, possible for it to pass off in a slighter way, by night sweats, rancid sweats, and a bad breath.† Should the animalizing powers be so strong as to turn the surplus into a pure blood, the consequence

* Mr. Wesley said, that one-third of what was used in youth, was sufficient for old age; and no person could be a better judge. We say from one-half to three-fifths for Americans.

† See the chapter in Dr. R. Thomas, on *Bulimia*.

is, a surplus of this material, or what we term a plethora, local or general; and hence comes dreaming, drowsiness, vertigo, head-ache, feverishness, piles, hamorrhages, and apoplexy. If instead of a pure blood, a heterogeneous blood is formed, deposits take place of such foreign matter; and gravel, calcarious matter, cancers, and other indurations, ensue. It is somewhere about this point that gout makes its appearance, where there is an excess of blood somewhat heterogeneous. The formative powers, (of flesh,) seem to be worried and solicited to give a place, or a consolidation to this fluid, till an inflammation ensues, and falls on those parts of the body that have been debilitated either by inaction or by over-action; as the muscles and stomach. A man may, however, so live, as to escape all the aforementioned locations, but yet he cannot escape disease entirely; and hence we find the surplus materies, after passing all the above outlets and inlets, finding its way to the skin, or to the adipose membrane: in the former case, causing eruptions, ulcers, fistula, and cancers; in the latter, producing angina pectoris, by large deposits of fat about the heart, and large arteries; or making an universal deposit of fat in a polysarca; in this dooming the patient to carry about him a hundred or two of useless fat; and if a female under forty-five years of age, to certain barrenness also.

As to *drinks*, nothing but pure water is healthy, even to those in good health. Rum, pure or diluted, cannot be safely used by a person in health; it should be only used as medicine. Wine may be used in moderation, to counteract a debility of the stomach, or a general debility; provided such debility has not been brought on by over stimulating. Sound porter may be used for the same purposes as wine, provided there is no colicky, or flatulent affection of the stomach or bowels. It is far more apt to disagree, when taken with food, than wine, and especially with fish.

Cider is liable to still more objections than porter, and may be considered an exhilarating drink, suited to those in perfect health, and in the habit of hard exercise.

The action of spirituous liquors seems to fall mostly on the same parts that are forced by an excess of diet, and therefore produce the same diseases; *i. e.* becomes the cause of them, either by a direct or indirect action. Hence the excess of both meats and drinks, when united, must soon reduce the most robust system, and lay it open a prey to the all consuming powers that envelope the system on every side. § See the Philosophy of Disease.

The most wholesome *bread* is made from sound old wheat, recently ground, and well fermented with vegetable yeast. It should be used the next day after baking. When all the contents of the wheat are ground together, it is less digestible, but more apperient, and hence suits some stomachs the best. A well toasted piece of bread, with tea, or a little water, will set on the stomach when no other bread will.

Biscuit is more apt to acidulate than bread.

Corn bread is more indigestible than wheat, but more apperient; and the same may be said of rye bread, in a still greater degree.

The following tables will exhibit, according to the author's information, the stimulating and digestible powers of most articles used for diet.

MEATS.—Their stimulating qualities, according to the arrangement. The first, being the most stimulating, and so in succession.

1. Pork.
2. Beef.
3. Mutton.
4. Veal.
5. Lamb.
6. Poultry.
7. Game.

☞ Salt meats are said to be more stimulating, and less digestible than fresh meats; and roasted more stimulating than boiled.

AQUATIC TRIBE.—The first being the most digestible.

1. Terrapins.
2. Fish.
3. Crabs.
4. Oysters.

Observations.—Terrapins are certainly one of the most digestible articles of all the animal race.

Large fish are very cloying to the appetite, and hence, are always sauced and spiced so highly as to make them a stimulating food, and apt to disagree, and at best they cannot be used often without disgusting or disagreeing. But small fish are quite the reverse, and when used with a little salt and pepper, may be continued in for a whole season. When very small, they make good food for convalescents.

Crabs, when in season, fresh and fat, are nutritious, and very wholesome; whole towns near the water, using them with impunity. To make them certainly wholesome, they should be double dressed; first boiled, and then picked and stewed. A mere boiling them to redness, is not sufficient; the boiling must be continued one hour longer. At the same time, nothing will more surely disagree with the stomach and bowels, than a poor crab out of season, and half cooked. It would therefore be best for those who are strangers to these things, to let them alone.

Oysters are more indigestible than is generally supposed, but they make less disturbance in a half-digested state, than most other articles. Roasting them in the shell is far the most healthy way to cook them; and if health is consulted, they should never be used late at night.

Vegetables.—Their digestibility according to the numbers; the first rank being the most digestible.

1. Snap beans, symblins, spinach, sprouts, asparagus, green peas.
2. Tomatoes, Irish potatoes, Lima beans, fruit of egg plants.
3. Cabbage and broccoli.
4. Turnips, carrots, beets, onions.
5. Parsnips, sweet potatoes, dry pease.
6. Roasting ears, (green corn.)

GREEN VEGETABLES.

1. Celery, lettuce, corn, salad; cooling, and digestible.
2. Cucumbers; cooling, and difficult to digest.

The general nourishing power of vegetables, and their relative power of nourishment, is well known by simple experience. But at the same time it may be observed, that they can be indulged in too freely, as well as meats; and they are always a vehicle to carry into the stomach a large quantity of butter or gravies, which articles are hard to digest, and readily injure the stomach.

Fruits.--Their digestibility according to the numbers; the first being the most digestible.

1. Grapes, strawberries, currants, raspberries.
2. Apples.
3. Pears.
4. Plums, gooseberries,
5. Peaches.
6. Cherries.
7. Melons.

All the above are cooling, and if used moderately, and in the day time, are healthy. But excepting apples, they will, by long continuance, bring on dyspepsia, and sometimes other diseases.

✍ In attributing relative degrees of digestive qualities to fruits, the common uses have been taken into consideration, rather than any fair experiment of digestibility. Thus, peaches are eaten very freely, and in a season when the stomach and bowels are prone to debility, and diarrhœa. But apples are eaten more moderately, and generally in the cool season. A fair experiment would require the same quantity, and the same season. A quantum sufficit of apples, would certainly be as liable, if not more so, than of peaches, to produce a momentary dyspepsia. Nevertheless, experience proves, that a continued use of peaches, will completely overthrow the digestive powers; whereas apples, though now and then offending, will not produce that permanent debility of the primæ viæ, that peaches do. Apples are aperient, and often prove beneficial to sluggish bowels.

Raspberries are disposed to produce costiveness.

Grapes, when not very sugary, are somewhat astringent.

Cantaloupes, and watermelons, (like peaches,) finally overthrow the digestive powers completely; so that the evacuation of them does not produce a speedy relief. They should be abandoned before such an event.

GENERAL GLOSSARY.

- Abdomen**, the belly.
- Abortion**, miscarriage.
- Absorbents**, medicines destroying acids and acrimony.
- Absorbent** (vessels,) vessels taking up fluids at their extremities, from surfaces and cavities.
- Accretion**, adhering together.
- Adam's core**, the protuberance on the upper and fore part of the windpipe.
- Adipose**, (membrane,) containing depositions of fat over the body.
- Acidulate**, to make sour.
- Alterative medicines**, such as emetics and mercurials, given in small doses for a time, so as not to puke, purge, or salivate.
- Alkali**, medicines that ferment (when carbonated,) with acids, and always unite with them, forming a third distinct article.
- Antipertussis**, against whooping cough.
- Anodyne**, medicines procuring sleep, and suspension of pain.
- Antiseptic**, preventing mortification.
- Anuerism**, a morbid enlargement of an artery, containing blood, compressible in some cases, and pulsating.
- Antiphlogistic**, cooling medicines, or diet and drinks, of the same quality.
- Attrition**, grinding against a hard substance.
- Aorta**, the great artery rising from the heart.
- Apothecarium**, the medicinal apparatus of this book.
- Aperient**, medicines, drinks or diet, of an opening quality, acting on the bowels, or surface.
- Aquatic**, growing in the water, or connected with water.
- Asphixia**, fainting from any cause, whether stomach, heart, or brain is prostrated.
- Athletic**, robust.
- Ascetic**, sour, vinegar quality.
- Atrophy**, pining away.
- Azote**, or nitrogen, one of the elementary components of the atmosphere, as also of animal, and of some vegetable substances.
- Apparatus**, tools, or machinery.
- Ad infinitum**, endless.
- Acme**, the summit.
- Aqueous**, watery.
- Accelerations**, quickening of actions.
- Borborismus**, rolling of wind in the bowels.
- Bronchiæ**, the lower extremity of the wind pipe, that branches into the lungs.
- Calcareous**, chalky.
- Callus**, hard, insensible flesh.
- Calcine**, the action of fire on articles; to expel their air, or to reduce them to a state of oxidation, as red lead is.
- Carbonated**, charged with the air produced by burning of charcoal, or by the action of acids on chalk, &c. which is carbonic acid gas.
- Caries**, a rotting of the bones.
- Caustic**, substances eating live or dead flesh, as blue stone, pure potash, fresh lime, nitrate of silver, &c.
- Catarrh**, cold; influenza.
- Catamenia**, monthly female discharges.
- Cellular membrane**, a membrane

- under the skin, passing over the whole body, so that it may be inflated.
- Cerebral**, belonging to the brain.
- Chalybeate**, of an iron quality.
- Chronic**, of long duration.
- Chlorosis**, retention of menses.
- Cicatrix**, a scar.
- Coma**, a lrowsy state from an oppressed brain.
- Collapse**, a temporary paralysis.
- Combustion**, act of burning.
- Concoction**, digestion of morbid matter.
- Constricted**, drawn up as by cold astringents, or spasms.
- Congestion**, a stulting, as fulness of blood.
- Concussion**, a sudden jolt, or fall.
- Coagulate**, to thicken, congeal.
- Contusion**, a bruise.
- Constipation**, costiveness.
- Crucial**, cross like \times thus.
- Crepula**, undigested food.
- Cranium**, the skull.
- Crystallization**, as salts in their various appropriate shapes.
- Cuticle**, the external thin skin.
- Caloric**, matter of heat.
- Cerebrum**, and **cerebellum**, parts of the brain.
- Commixed**, many articles mingled.
- Contour**, the outline of any figure.
- Corpus u'ar**, belonging to bodies made up of small parts.
- Decoction**, that which is made by boiling.
- Deobstruent**, removing obstructions.
- Deleterious**, poisonous.
- Defluctions**, discharges of humours.
- Denuded**, rid bare, naked.
- Delirium**, mental derangement. as in fevers.
- Delirium tremens**, an agitation of body and mind from suddenly quitting the use of drink, or opium.
- Demulient**, (drinks,) softening.
- Dentition**, the cutting of teeth.
- Diagnosis**, distinction of disease.
- Diaphoretics**, sweating medicines.
- Diarrhoea**, lax.
- Diluents**, watery medicines, thinning the humours.
- Diuretics**, medicines acting on the kidneys, producing urine.
- Drastic**, rough purges.
- Ductile**, soft and yielding.
- Diphyical**, of two powers.
- Ebullition**, bubbling up, fermenting.
- Efflorescence**, small eruptions of a ruddy appearance, in patches.
- Effluvia**, exhalations. [vour.
- Empyrheumatic**, burned wood flamm.
- Empirical**, quackish, experimental.
- Embrocation**, a topical wash, of a medicinal nature.
- Emulsion**, mixtures where oil and water are incorporated by some medium, as sugar mucilage, &c.
- Endemic**, proper to a place.
- Epidemic**, diseases over the people generally, as influenza.
- Epididymis**, glands on the superior connection of the testes.
- Eruptive**, diseases breaking out on the skin.
- Eschar**, a burned surface from application of caustic, or fire.
- Expectorant**, medicines promoting a discharge of phlegm.
- Exhalents**, extreme vessels pouring out aqueous fluids.
- Extravasated**, fluids thrown out of their proper vessels.
- Exacerbate**, to kindle up anew, as do fevers.
- Exhalations**, evaporations.
- Exostosis**, enlargements of bone.
- Excrescence**, a preternatural growth, as a wart, or tumour.
- Extempore**, immediately done.
- Fatuity**, weakness of mind.
- Fauces**, the gulph of the throat from the palate to the root of the tongue.
- Febrifuge**, driving away fevers.
- Flatus**, wind in the primæ viæ.
- Foeces**, dung.
- Fomites**, the inoculating effluvia, that produces infectious disease.
- Formula**, a prescription.

- Fœtus**, the child in the womb.
Fomentations, warm washes to soften tumours, spasms, &c.
Fused, melted.
Fungus, spongy, mushroom-like.
Gangrene, a soft state of flesh, preceding mortification.
Gastric, (juices,) digesting humours of the stomach.
Gas, an æriform, elementary fluid.
Gestation, period of child bearing.
Gleet, a chronic running of the urethra.
Goutre, a tumour or enlarged gland, on the external and anterior part of the throat.
Granules of flesh, little elevations on the bottom of healing ulcers.
Hæmorrhages, discharges of blood.
Heterogeneous, of a foreign or unassociating nature.
Homogenous, of one nature, associating as its parts of one.
Hydatids, dropsical glands filled with water.
Hydrogen, one of the elementary principles of water, inflammable air.
Hydraulic, by the laws of fluids, (*i. e.* medically,) when forced.
Ichor, an itching humour.
Idiopathic, genuine image, true form.
Idiosyncrasy, peculiarity of habit.
Iliac passion, colic of the small bowels, often attended with an entire obstruction.
Incised, cut, wounds from sharp instruments.
Induration, hardening.
Intumescence, swelling.
Ingesta, articles thrown into the stomach, or objects to the mind.
Inanition, emptiness.
Inundation, an overflowing.
Lacerated, wounds that are torn.
Lacteals, vessels carrying milk, and milk-like humours.
Lochia, discharge after a birth.
Levigated, ground to an impalpable powder.
- Lymphatic**, (vessels,) carrying a watery humour.
Lumbar, (region,) the loins.
Malaria, bilious fevers.
Macies, thinness, pining away.
Marasmus, pining away with slow fever.
Malignant, of a bad kind, verging to a low putrid state.
Mal-formation, badly formed.
Menses, monthly female discharges.
Metastasis, changing of place by the disease.
Metaphysical, actions of the mind.
Mesentery, the membrane fastening the bowels to the vertebræ of the back-bone.
Miasmata, the effluvia of marshes.
Mucilage, gum and water.
Motorial, [power,] producing action.
Monophysical, a single power.
Morbific, [action,] diseased.
Narcotics, opiates.
Nares, the internal parts of the nose, down to the fauces.
Nidus, a nest.
Nitrogen.—See Azote.
Nosology, an arrangement of diseases into orders, classes, genera, species, and varieties.
Neutralization, making a third distinct article, by the operation of two opposed in quality.
Oedema, a dropsy of the legs, or any other parts that pits on pressure.
Œsophagus, the gullet.
Omentum, the caul.
Obstipation, costiveness.
Optic, belonging to the eye.
Ossify, becoming bone.
Oxygen, one of the elements composing the atmosphere, necessary to support combustion and life.
Oxydated, the metallic state changed to a salt, or calx, by oxygen.
Organic, belonging to organized bodies.
Palliative, temporizing medicines.
Paralytic, affected with palsy.

- Pari passu**, with accompanying steps.
- Pappus**, the down of the flower, seen after the petals have fallen off.
- Parturition**, the act of bringing forth by birth.
- Pathology**, the doctrine of diseased actions.
- Panicle**, a compound flower stalk, the stem having many branches, irregular divisions, and terminations.
- Pericardium**, a membranous bag, in which the heart plays.
- Pediluvium**, a foot bath.
- Peristaltic**, motion, the natural action of the *primæ viæ*, downwards.
- Pelvis**, (the bason,) the open space of the bones in females, from the interior of the sacrum, immediately across to the junction of the pubis, and a central transverse line.
- Petals**, the leaf or leaves constituting a flower.
- Peritoneum**, the lining membrane of the cavity of the abdomen.
- Peccant**, offending matter.
- Petechiæ**, small black spots ready to bleed, breaking out on the surface in low fevers.
- Pharmacopœia**, the book of forms to prepare medicines.
- Phrenitis**, inflammation of the brain.
- Phlegmasia**, class of inflammatory diseases.
- Pharmacy**, the art of compounding medicine.
- Phthisical**, consumptive.
- Phlegmon**, a bile.
- Pledgets**, bundles of lint to put on sores, &c.
- Plethoric**, full of blood.
- Plexus**, a net work of vessels.
- Polysarca**, obesity, fatness.
- Porous**, spongy.
- Procidencia**, a falling down of the gut or uterus.
- Pro re nata**, as things turn out.
- Prescription**, the physician's formula of medicines, with directions.
- Primæ viæ**, the first passages, i. e. from the stomach to the rectum.
- Premonitory**, forewarning.
- Protracted**, drawn out in length of time.
- Pyrolignous**, burned wood, flavour or quality.
- Puerperal**, child bearing, the birth.
- Pupil**, the central clear part of the eye that enlarges at night by the dilation of the (coloured,) iris, which surrounds it.
- Pus**, a name for pure matter.
- Pustules**, small elevations like boils, filled with matter.
- Plume**, a feather-like vegetation, rising upwards from the seed in vegetating.
- Physiology**, the doctrine of natural actions and growth in the human system.
- Plantule**, the young plant from the seed.
- Physical**, the actions of visible and tangible powers on each other.
- Purulent**, of a matter-like quality.
- Phænomena**, extraordinary appearances, or actions.
- Phrenology**, the doctrine of determining the moral qualities of man by the contour and size of his head!
- Q. S.** an abbreviate of quantum sufficit, or enough.
- Quinine**, a bitter salt of Peruvian bark, procured by sulphuric acid.
- Quercitron**, red oak with palmated leaves.
- Quotidian**, a daily intermittent.
- Quartan**, an intermittent with two well days between each fit.
- Remittent**, a fever that abates at periods, but does not intermit.
- Recumbent**, lying down.
- Rigours**, a convulsive shaking.
- Riven**, split.
- Radicle**, little root.
- Rectum**, the last gut.
- Reaction**, reciprocal action.
- Sanguinous**, full of blood.

- Sanative**, healing power.
- Saturate**, to charge to the full, or to neutralize, as acids, with alkali.
- Sac**, a bag of any shape, applied to ulcers holding matter.
- Saline**, of the nature of salts.
- Scrotum**, the bag holding the testes.
- Segments**, divisions.
- Sinus**, a cavity or depression making private communications between diseased parts.
- Slough**, mortified substance.
- Sordes**, filth.
- Solution**, of continuity, a wound with destruction or separation of parts.
- Soluble**, easily dissolved.
- Spasms**, contractions of the fibres for some duration, but not permanent.
- Spine**, back bone.
- Stellated**, formed like a star.
- Sthenic**, of an inflammatory nature.
- Stupor**, drowsiness.
- Sub sultus**, a starting of the muscles and tendons, verging to a convulsion.
- Sporadic**, solitary case.
- Spatula**, a limber knife to spread plaisters.
- Suppuration**, forming matter.
- Tarsi**, the parts of the eye in which the eye lashes are rooted.
- Technical**, a term of art, rather than a description.
- Testes**, the male glands, distinguishing the sex.
- Tenesmus**, an ineffectual straining of the last gut, as in decline of dysentery.
- Tendon**, the smooth pullies that unite muscles to bones.
- Tertian**, a fever with one well day between each fit or paroxysm.
- Tepid**, warm as fresh milk.
- Thorax**, the chest.
- Topical**, local.
- Torpor**, dulness.
- Tonics**, medicines increasing the power, rather than the circulation.
- Tournequet**, a screw and bandage to put round a limb in hæmorrhage.
- Trachea**, the windpipe.
- Traumatic**, vulnerary.
- Transuding**, passing through.
- Tremors**, tremblings.
- Turgid**, swollen.
- Tubercles**, morbid tumours of a glandular appearance, mostly in the lungs of phthisical patients liable to suppuration.
- Type**, the form of a disease.
- Urethra**, the passage for the urine, from the bladder out.
- Uric**, (acid,) a solid concrete formed by depositions from the urine, into gravel or stone.
- Uterus**, the womb.
- Vagina**, the sheath or female parts from the entry to the uterus.
- Vertebræ**, the joints composing the back-bone, or neck.
- Ventilate**, to air, expose to wind.
- Vomica**, an inclosed suppuration generally in the lungs.

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